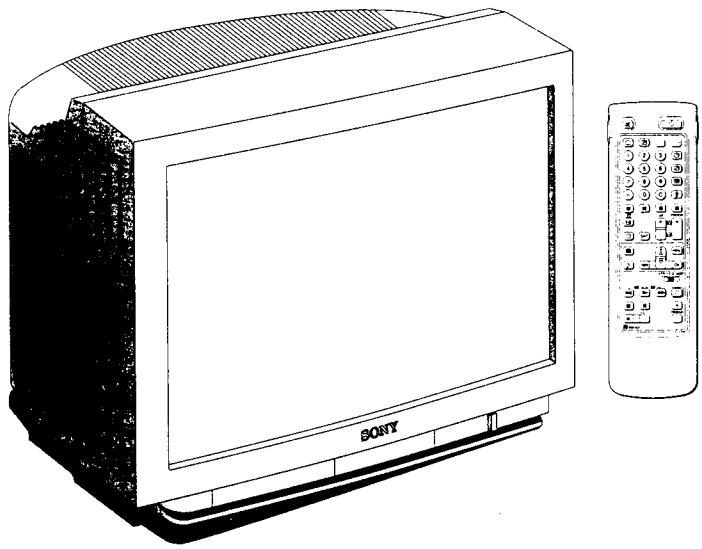
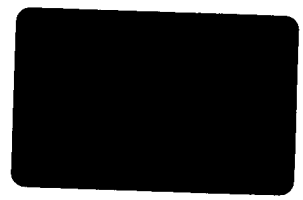
SERVICE MANUAL

AE-2A CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-A2131A	RM-831	Italian	SCC-G12D-A
KV-A2131B	RM-831	French	SCC-G13E-A
KV-A2131D	RM-831	AEP	SCC-G14E-A
KV-A2133E	RM-831	Spanish	SCC-G15E-A
KV-A2132U	RM-831	UK	SCC-G16E-A





MICROFILM

TRINITRON® COLOR TV

SONY®

ITEM MODEL	Television system	Stereo system	Channnel coverage	Color system
Italian	B/G/H, D/K	GERMAN Stereo	ITALIA VHF:A-H2 (C) UHF:21-69 PAL B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 D/K VHF:R01-R12 UHF:R21-R69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
French	B/G/H, D/K L, I	GERMAN Stereo	L VHF:F02-F10 UHF:F21-F60 CABLE:B-Q B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69 D/K VHF:R01-R12 UHF:R21-R69 I UHF:B21-B69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
AEP	B/G/H, D/K	GERMAN Stereo	PAL B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69 D/K VHF:R01-R12 UHF:R21-R69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
Spanish	B/G/H, D/K	GERMAN/NICAM Stereo	PAL B/G VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69 D/K VHF:R01-R12 UHF:R21-R69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
UK	I	NICAM Stereo	UHF : B21-B69	PAL SECAM, NTSC 4.43 NTSC 3.58 (VIDEO IN)

MODEL	Italian	French	AEP	Spanish	UK
Power consumption	87 W	139Wh	98 Wh	99 Wh	122 W

Picture tube — Hi-Black Trinitron
Approx. 54.5 cm (21inches)
(Approx. 51 cm picture measured diagonally)
100 ° -deflection

【REAR】
1 21-pin Euro connector
(CENELEC standard)
Inputs for audio and video signals
- inputs for RGB
- outputs of TV video and audio signals

2/2 21-pin Euro connector
- inputs for audio and video signals
- inputs for S video
- outputs for audio and video signals (selectable)

Audio outputs (Variable) - phono jacks

【FRONT】
3 Video input-phono jack
Audio input-phono jacks
3 S video input 4-pin DIN
Headphone jack : Stereo minijack

Sound output	2×15 (RMS) 2×30 (Music)
Power reqirement	220-240V
Dimensions	Approx.606 x 440 x495 mm
Weight	Approx.32kg
Supplied accessories	RM-831 Remote Commander (1) IEC designation R6 batteries (2)
Other features	NICAM, FASTEXT

【RM-831】

Remote control system	infrared control
Power requirements	3V dc 2 batteries IEC designation R6 (size AA)
Dimentions	Approx.65×225×21mm (w/h/d)
Weight	Approx.157g (Not including Batteries)

Design and specifications are subject to change without notice.

Item \ Model name	KV-A2131A	KV-A2131B	KV-A2131D	KV-A2133E	KV-A2132U
Pal Comb	ON	OFF	ON	ON	ON
PiP	OFF	ON	OFF	OFF	OFF
RGB Priority	ON	ON	OFF	OFF	OFF
Woofer Box	OFF	OFF	OFF	OFF	OFF
Scart 1	ON	ON	ON	ON	ON
Scart 2	ON	ON	ON	ON	ON
Front in (3)	ON	ON	ON	ON	ON
Scart 4	OFF	OFF	OFF	OFF	OFF
Dyn. Convergence	OFF	OFF	OFF	OFF	OFF
Projector	OFF	OFF	OFF	OFF	OFF
AKB in 16:9 mode	ON	ON	ON	ON	ON
Norm B/G	ON	ON	ON	ON	OFF
Norm I	OFF	ON	OFF	OFF	ON
Norm D/K	ON	ON	ON	ON	OFF
Norm AUS	OFF	OFF	OFF	OFF	OFF
Norm L	OFF	ON	OFF	OFF	OFF
Norm SAT	OFF	OFF	OFF	OFF	OFF
Norm M	OFF	OFF	OFF	OFF	OFF
Language Preset	Italiano	Francais	Deutsch	None	English

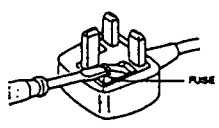
WARNING KV-A2532U only

The flexible mains lead is supplied to connected a B.S. 1363 fused plug having a fuse of 5 amp capacity. Should the fuse need to be replaced, use a 5 AMP FUSE approved by ASTA to BS 1362, ie carries the ASTA mark.

If the plug supplied with this appliance is not suitable for your socket outlets in your home, it should be cut off and an appropriate plug fitted.

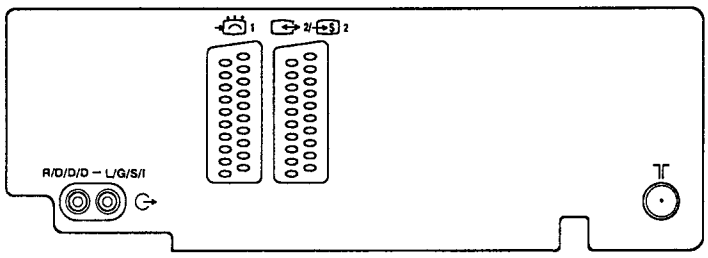
The plug severed from the mains lead must be destroyed as a plug with bared wires is dangerous if engaged in a live socket outlet.

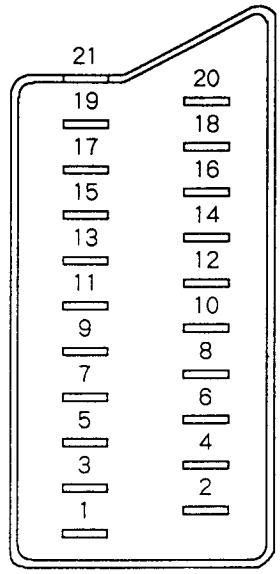
When an alternative type of plug ist used it should be fitted with a 5 AMP FUSE, otherwise the circuit should be protected by a 5 AMP FUSE at the distribution board.



How to replace the fuse
Open the fuse compartment with the blade screwdriver, and replace the fuse.

21 pin connector (1 2/4)





Pin No	1	2	Signal	Signal level
1	○	○	Audio output B (right)	Standard level : 0.5Vrms Output impedance : Less than 1kohm *
2	○	○	Audio input B (right)	Standard level : 0.5Vrms Input impedance : More than 10kohms *
3	○	○	Audio output A (left)	Standard level : 0.5Vrms Output impedance : Less than 1kohm *
4	○	○	Ground (audio)	
5	○	○	Ground (blue)	
6	○	○	Audio input A (left)	Standard level : 0.5Vrms Input impedance : More than 10kohms *
7	○	●	Blue input	0.7 ± 3dB, 75ohms, positive
8	○	○	Function select (AV control)	High state (9.5 – 12V) : Part mode Low state (0 – 2V) : TV mode Input impedance : More than 10kohms Input capacitance : Less than 2nF
9	○	○	Ground (green)	
10	○	○	Open	
11	○	●	Green	Green signal : 0.7V ± 3dB, 75ohms, positive
12	○	○	Open	
13	○	○	Ground (red)	
14	○	○	Ground (blanking)	
15	○	–	Red input	0.7V ± 3dB, 75ohms, positive
	–	○	(S signal) croma input	0.3V ± 3dB, 75ohms, positive
16	○	●	Blanking input (Ys signal)	High state (1 – 3V) Low state (0 – 0.4V) Input impedance : 75ohms
17	○	○	Ground (video output)	
18	○	○	Ground (video input)	
19	○	○	Video output	1V ± 3dB, 75ohms, positive Sync : 0.3V (– 3, + 10dB)
20	○	–	Video input	1V ± 3dB, 75ohms, positive Sync : 0.3V (– 3, + 10dB)
	–	○	Video Input/Y (S signal)	1V ± 3dB, 75ohms, positive Sync : 0.3V (– 3, + 10dB)
21	○	○	Common ground (plug, shield)	

○ Connected ● unconnected (open) * at 20Hz – 20kHz

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CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND, IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

ATTENTION!!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÂSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE.
LE CHÂSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÈS PAR UNE TRAME ET PAR UNE MARQUE ⚠ SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIECES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÉCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY.

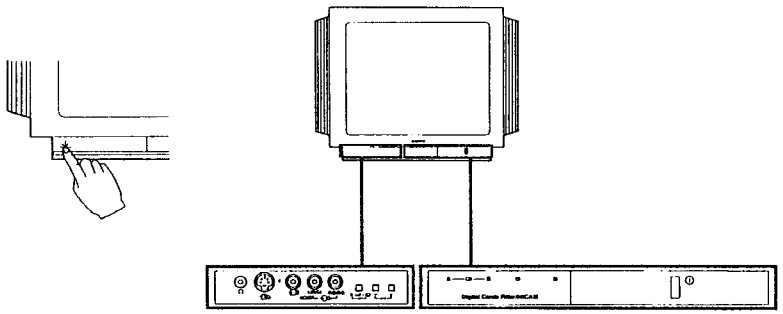
SECTION 1
GENERAL

The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remein as in the manual.

Overview

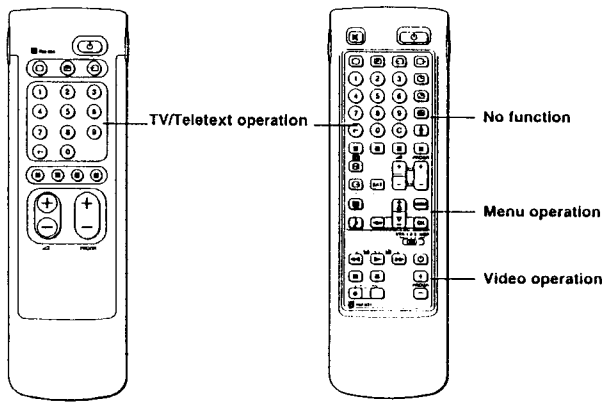
This section briefly describes the buttons and controls on the TV set and on the Remote Commander. For more information, refer to the pages given next to each description.

TV set - front



Symbol	Name	Refer to page
⏻	Main power switch	13
⏻	Standby indicator	13
A-CD-B	Stereo A/B indicators	15
∩	Headphones jack	21
S 3, 3, 3,	Input jacks (S-video/video/audio)	21
P	Function selector (Programme/volume/input)	14
− +	Adjustment buttons for function selector	14

Remote Commander



Simple side

Full-Function side

Note
The SAT button does not operate with this TV.

TV operation

Symbol	Name	Refer to Page
🔇	Mute on/off button	14
⏻	Standby button	13
▭	TV power on/TV mode selector button	13
▤	Teletext button	14
⏎	Input mode selector	14
⏎	Output mode selector	21
1,2,3,4,5,6, 7,8,9, and 0	Number buttons	13
−/− −	Double-digit entering button	13
C	Direct channel entering button	10
◿+/−	Volume control button	13
PROGR +/−	Programme selectors	13
2 1+8	Teletext page access buttons	18
●	Picture adjustment button	15
♪	Sound adjustment button	15
⏎	On-screen display button	14
4/3	Teletext hold button	18
⏲	Time display button	14
■■■■	Fastext buttons	17

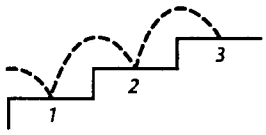
Menu operation

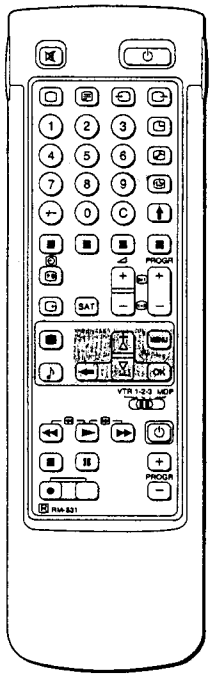
Symbol	Name	Refer to Page
MENU	Menu on / off button	7
△+/▽−	Select buttons	7
OK	OK (confirming) button	7
⬅	Back button	7

Video operation

Symbol	Name	Refer to Page
VTR1/2/3 MDP	Video equipment selector	25
◀◀ ▶ ▶▶ ■ ❚❚ ● ⏻ PROGR +/−	Video equipment operation buttons	25

Step 3 Tuning in to TV Stations





Once you have set up the TV, you can choose the language of the menu. Then you should preset the channels (up to 100 channels) by choosing either the automatic or manual method.

The automatic method is easier if you want to preset all receivable channels at once. Use the manual method if you only have a few channels and want to preset channels one by one. The manual method is also convenient for allocating programme numbers to various video input sources.

Before you begin

- Check that the Full-Function side of the Remote Commander is visible.
- Locate Menu operation buttons on the Remote Commander. They are shaded in the illustration at the left.

❶ Choose a language

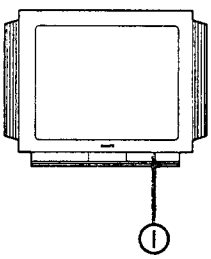
1 Depress ⏻ on the TV.

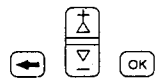
The TV will switch on. If the standby indicator on the TV is lit, press ▭ or a number button on the Remote Commander.

2 Press the MENU button.
The LANGUAGE menu appears.

3 Select the language you want with △+ or ▽–, and then press OK

Fig. 1.





❷ Display the Menu

1 Press the ← button.
The main menu appears. (See Fig. 2)

Now, choose one of the methods described overleaf:

"Preset Channels Automatically"

or

"Preset Channels Manually".

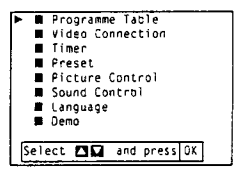


Fig. 2.

To go back to main menu:
Keep pressing ←.

To go back to the normal TV picture:
Press MENU. Normal TV picture will be restored after one minute if menu functions are not selected.

Note on the Demo function:
If you choose Demo on the main menu, you can see a sequential demonstration of the menu functions.

❸ Preset channels automatically

With this method, you can preset all receivable channels at once.

To stop automatic channel presetting:
Press ⬅ on the Remote Commander.

Notes:
- After presetting the channels automatically, you can check which channels are stored on which programme positions. For details, see "Using the Programme Table" on page 16.
- You can exchange the programme positions to have them appear on screen in the order you like. For details, see "Exchanging the Programme Positions" on page 10.

1 Select Preset with △+ or ▽– and press OK.
The PRESET menu appears. (See Fig. 3.)

2 Select Auto Programme with △+ or ▽– and press OK.
The AUTO PROGRAMME menu appears. (See Fig. 4.)

3 Press OK repeatedly until the first element of the "PROG" number is highlighted.

4 Select the programme (number button) from which you want to start presetting. Select the first element of the double-digit number with △+ or ▽– or the number buttons (e.g. For "04", select "0" here) and press OK.
The second element of "PROG" will be highlighted.

5 Select the second element of the double-digit number with △+ or ▽– or the number buttons (e.g. For "04", select "4" here) (See Fig. 5.) and press OK.

6 The automatic channel presetting starts.
When presetting is finished, the preset menu reappears. All available channels are now stored on successive number buttons. (Press menu to restore normal TV picture).

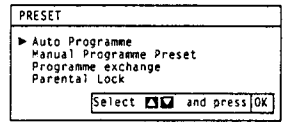


Fig. 3.

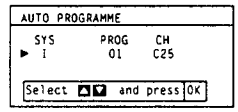


Fig. 4.

Fig. 5.

❸ Preset channels manually

Use this method if there are only a few channels in your area to preset or if you want to preset channels one by one. You may also allocate programme numbers to various video input sources.

If you have made a mistake:
Press ⬅ to go back to the previous position.
To go back to main menu
Keep pressing ⬅.
To go back to the normal TV picture
Press MENU.

1 Select Preset with △+ or ▽– and press OK.
The PRESET menu appears. (See Fig. 6.)

2 Select Manual Programme preset with △+ or ▽– and press OK.
The MANUAL PROGRAMME PRESET menu appears. (See Fig. 7.)

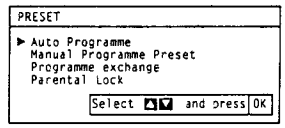


Fig. 6.

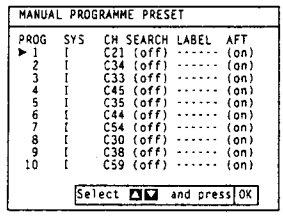

MANUAL PROGRAMME PRESET
PROG SYS CH SEARCH LABEL AFT
▶1 I C21 (off) ------ (on)
2 I C34 (off) ------ (on)
3 I C33 (off) ------ (on)
4 I C45 (off) ------ (on)
5 I C35 (off) ------ (on)
6 I C44 (off) ------ (on)
7 I C54 (off) ------ (on)
8 I C30 (off) ------ (on)
9 I C38 (off) ------ (on)
10 I C59 (off) ------ (on)
Select ▲▼ and press OK

Fig. 7.

To tune in a channel by frequency:
After selecting F in step 6, enter three digits using the number buttons. Press OK.

3 Using △+ or ▽–, select the programme position (number button) to which you want to preset a channel, and press OK.

4 Keep pressing ▽– to select programme numbers higher than 10.

5 Select, if necessary, a video input source (EXT) with △+ or ▽–. Then press OK. The first element of the CH position will be highlighted. (See Fig. 8.)

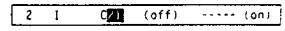


Fig.8.

6 Using △+ or ▽–, select C (to preset a regular channel), or F (to tune in by frequency) and press OK.
The first element of the "CH" number will be highlighted.
If you have selected EXT in step 4, select the video input source with △+ or ▽–. (See Fig. 9.)

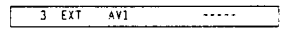


Fig.9.

Please refer to "Television Channel Number Guide" on page 24.

There are two ways to preset channels. If you know the channel number, go to step "7-Manual",

or

if you don't know the channel number, go to step "7- Search".

7 ***Manual***

-a Select the first element of the "CH" number with △+ / ▽– or the number buttons and press OK.
The second element of the "CH" number will be highlighted.

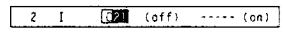


Fig.10.

-b Select the second element of the number with △+ / ▽– or the number buttons.
The selected number appears. (See Fig. 10.)

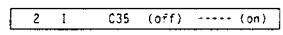


Fig.11.

-c Press OK
The "SEARCH" position is highlighted and the selected channel is now stored. (See Fig. 11.)

-d Press OK until the cursor appears by the next programme position.

-e Repeat steps 3 to 7 to preset other channels.

If you have made a mistake:
Press ⬅ to go back to the previous position.
To go back to main menu
Keep pressing ⬅.
To go back to the normal TV picture
Press MENU.

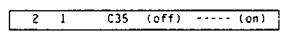


Fig.12.

7 ***Search***

-a Press OK repeatedly until the colour of the SEARCH position changes.

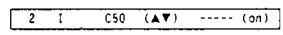


Fig.13.

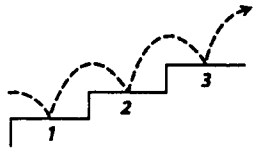
-b Start searching for the channel with △+ (up) or ▽– (down).
The CH position changes colour. (See Fig. 12.)
The CH number starts counting up or downwards. When a channel is found, it stops. (See Fig. 13.)

-c Press OK if you want to store this channel. If not, press △+ or ▽– to continue channel searching.

-d Press OK until the cursor appears by the next programme position.

-e Repeat steps 3 to 7 to preset other channels.

Additional Presetting Functions

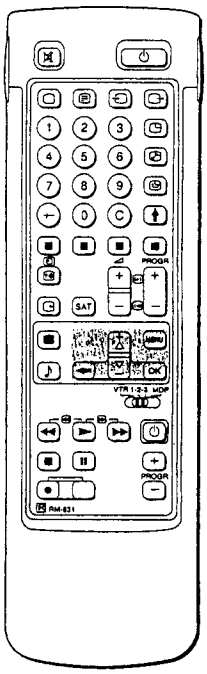


This section shows you additional presetting functions such as exchanging or skipping programme positions, captioning a station name, manual fine-tuning, and using the parental lock.

Before you begin

- Check that the Full Function side of the Remote Commander is visible
- Locate the Menu operation buttons.

PROGRAMME EXCHANGE



Exchanging Programme Positions

With this function, you can exchange the programme positions to a preferable order.

1 Press MENU to display the main menu.

2 Select Preset with △+ or ▽– and press OK.
The PRESET menu appears.

3 Select Programme exchange with △+ or ▽– and press OK.
The PROGRAMME EXCHANGE menu appears. (See Fig. 14.)

4 Using △+ or ▽–, select the programme position you want to exchange with another and press OK.
The colour of the selected position changes. (See Fig. 15.)

5 Using △+ or ▽–, select the programme posititon to be exchanged and press OK. Now the two programme positions have been exchanged. (See Fig. 16.)

6 Repeat steps 4 and 5 to exchange other programme positions.

PROGRAMME EXCHANGE

	PROG	CH	LABEL	PROG	CH	LABEL
▶	0	AV1	VHS	8	C29	ITV
	1	---	---	9	C35	C4
	2	C52	BBC1	10	C02	---
	3	C61	BBC2	11	C02	---
	4	---	---	12	C02	---
	5	VIDEO	8MM	13	C02	---
	6	C02	---	14	C02	---
	7	C02	---	15	C02	---

Exchange PR5 with PR10

Fig. 14.

3 C12 ARD 11 --- ---

Fig. 15.

PROGRAMME EXCHANGE

	PROG	CH	LABEL	PROG	CH	LABEL
	0	AV1	VHS	8	C26	ITV
	1	---	---	9	C32	C4
	2	C22	BBC1	10	C02	---
▶	3	C26	BBC2	11	C02	---
	4	---	---	12	C02	---
	5	VIDEO	8MM	13	C02	---
	6	C02	---	14	C02	---
	7	C02	---	15	C02	---

Exchange PR3 with PR4

Fig. 16.

Tuning in a Channel Temporarily

You can tune in a channel temporarily, even when it has not been preset. Use the buttons on the Full-Function side of the Remote Commander.

1 Press C on the Remote Commander.
The indication "C" appears on the screen.

2 Enter the double-digit channel number using the number buttons (e.g. for channel 4, first press 0, then 4).
The channel appears.
However, the channel will not be stored.

For higher programme positions:
The display scrolls automatically.

If you have made a mistake:
Press ⬅ to go back to the previous position.

To go back to main menu:
Keep pressing ⬅.

To go back to the normal TV picture:
Press MENU.

MANUAL PROGRAMME PRESET

Skipping Programme Positions

You can skip unused programme positions when selecting programmes with the PROGR +/- buttons. However, the skipped programmes may still be called up when you use the number buttons.

PROGR
+
−

1 Press MENU to display the main menu.

2 Select Preset with △+ or ▽− and press OK.
The PRESET menu appears.

3 Select Manual Programme Preset with △+ or ▽− and press OK.
The MANUAL PROGRAMME PRESET menu appears. (See Fig.18.)

4 Using △+ or ▽−, select the programme position which you want to skip and press OK.
The "SYSTEM" position changes colour.

5 Press △+ or ▽− until − − − appears in the SYSTEM position. (See Fig. 18.)

6 Press OK. (See Fig. 19.)
When you select programmes using the PROGR +/− buttons, the programme position will be skipped.

7 Repeat steps 4 to 6 to skip other programme positions.

MANUAL PROGRAMME PRESET

PROG	SYS	CH	SEARCH	LABEL	AFT
▶ 1	I	C21	(off)	-----	(on)
2	I	C24	(off)	-----	(on)
3	I	C25	(off)	-----	(on)
4	I	C27	(off)	-----	(on)
5	I	C28	(off)	-----	(on)
6	I	C22	(off)	-----	(on)
7	I	C26	(off)	-----	(on)
8	I	C25	(off)	-----	(on)
9	I	C23	(off)	-----	(on)
10	I	C29	(off)	-----	(on)

Select ▲▼ and press OK

Fig. 17.

3 ---

Fig. 18.

3 ---
▶ 4 I

Fig. 19.

Captioning a Station Name

You can "name" a channel or an input video source using up to five characters (letters or numbers) to be displayed on the TV screen (e.g. BBC1). Using this function, you can easily identify which channel or video source you are watching.

1 Press MENU to display the main menu.

2 Select Preset with △+ or ▽− and press OK.
The PRESET menu appears.

3 Select Manual Programme Preset with △+ or ▽− and press OK.
The MANUAL PROGRAMME PRESET menu appears. (See Fig. 20.)

If you have made a mistake:
Press ← to go back to the previous position.

To go back to main menu:
Keep pressing ←.

To go back to the normal TV picture:
Press MENU.

4 Using △+ or ▽−, select the programme position you want to caption and press OK repeatedly until the first element of the LABEL position is highlighted.

5 Select a letter or number with △+ or ▽− and press OK.The next element will be highlighted.
Select other characters in the same way. If you want to leave an element blank, select – and press OK. (See Fig. 21.)

6 After selecting all the characters, press OK repeatedly until the cursor appears by the next programme position (at the left margin). Now the caption you chose is stored. (See Fig. 22.)

7 Repeat steps 5 and 6 to caption names for other channels.

MANUAL PROGRAMME PRESET

PROG	SYS	CH	SEARCH	LABEL	AFT
▶ 1	I	C21	(off)	-----	(on)
2	I	C24	(off)	-----	(on)
3	I	C25	(off)	-----	(on)
4	I	C27	(off)	-----	(on)
5	I	C28	(off)	-----	(on)
6	I	C22	(off)	-----	(on)
7	I	C26	(off)	-----	(on)
8	I	C25	(off)	-----	(on)
9	I	C23	(off)	-----	(on)
10	I	C29	(off)	-----	(on)

Select ▲▼ and press OK

Fig. 20.

2 I C25 (off)S--- (on)

Fig. 21.

▶2 I C25(off)SONY- (on)

Fig. 22.

MANUAL PROGRAMME PRESET

Skipping Programme Positions

You can skip unused programme positions when selecting programmes with the PROGR +/- buttons. However, the skipped programmes may still be called up when you use the number buttons.

PROGR
+
−

1 Press MENU to display the main menu.

2 Select Preset with △+ or ▽− and press OK.
The PRESET menu appears.

3 Select Manual Programme Preset with △+ or ▽− and press OK.
The MANUAL PROGRAMME PRESET menu appears. (See Fig.18.)

4 Using △+ or ▽−, select the programme position which you want to skip and press OK.
The "SYSTEM" position changes colour.

5 Press △+ or ▽− until − − − appears in the SYSTEM position. (See Fig. 18.)

6 Press OK. (See Fig. 19.)
When you select programmes using the PROGR +/− buttons, the programme position will be skipped.

7 Repeat steps 4 to 6 to skip other programme positions.

MANUAL PROGRAMME PRESET

PROG	SYS	CH	SEARCH	LABEL	AFT
▶ 1	I	C21	(off)	-----	(on)
2	I	C24	(off)	-----	(on)
3	I	C25	(off)	-----	(on)
4	I	C27	(off)	-----	(on)
5	I	C28	(off)	-----	(on)
6	I	C22	(off)	-----	(on)
7	I	C26	(off)	-----	(on)
8	I	C25	(off)	-----	(on)
9	I	C23	(off)	-----	(on)
10	I	C29	(off)	-----	(on)

Select ▲▼ and press OK

Fig. 17.

3 ---

Fig. 18.

3 ---
▶ 4 I

Fig. 19.

Captioning a Station Name

You can "name" a channel or an input video source using up to five characters (letters or numbers) to be displayed on the TV screen (e.g. BBC1). Using this function, you can easily identify which channel or video source you are watching.

1 Press MENU to display the main menu.

2 Select Preset with △+ or ▽− and press OK.
The PRESET menu appears.

3 Select Manual Programme Preset with △+ or ▽− and press OK.
The MANUAL PROGRAMME PRESET menu appears. (See Fig. 20.)

If you have made a mistake:
Press ← to go back to the previous position.

To go back to main menu:
Keep pressing ←.

To go back to the normal TV picture:
Press MENU.

4 Using △+ or ▽−, select the programme position you want to caption and press OK repeatedly until the first element of the LABEL position is highlighted.

5 Select a letter or number with △+ or ▽− and press OK.The next element will be highlighted.
Select other characters in the same way. If you want to leave an element blank, select – and press OK. (See Fig. 21.)

6 After selecting all the characters, press OK repeatedly until the cursor appears by the next programme position (at the left margin). Now the caption you chose is stored. (See Fig. 22.)

7 Repeat steps 5 and 6 to caption names for other channels.

MANUAL PROGRAMME PRESET

PROG	SYS	CH	SEARCH	LABEL	AFT
▶ 1	I	C21	(off)	-----	(on)
2	I	C24	(off)	-----	(on)
3	I	C25	(off)	-----	(on)
4	I	C27	(off)	-----	(on)
5	I	C28	(off)	-----	(on)
6	I	C22	(off)	-----	(on)
7	I	C26	(off)	-----	(on)
8	I	C25	(off)	-----	(on)
9	I	C23	(off)	-----	(on)
10	I	C29	(off)	-----	(on)

Select ▲▼ and press OK

Fig. 20.

2 I C25 (off)S--- (on)

Fig. 21.

▶2 I C25(off)SONY- (on)

Fig. 22.

MANUAL PROGRAMME PRESET

Manual Fine-Tuning

Normally, the AFT(automatic fine-tuning) is already operating. However, if the picture is distorted, you can use the manual fine tuning function to obtain better picture reception.

1 Press MENU to display the main menu.

2 Select Preset with △+ or ▽– and press OK.
The PRESET menu appears.

3 Select Manual Programme Preset with △+ or ▽– and press OK.
The MANUAL PROGRAMME PRESET menu appears. (See Fig. 23.)

4 Using △+ or ▽– , select the programme position corresponding to the channel which you want to manually fine-tune, and press OK repeatedly until the AFT position changes colour.

5 Fine-tune the channel with △+ or ▽– so that you get the best TV reception. As you press the cursor buttons, the frequency changes from –15 to +15. (See Fig. 24.)

To reactivate AFT (automatic fine tuning): Repeat from the beginning and select "ON" in step 5.

6 After fine tuning, press OK.
The cursor appears beside the next programme position (at the left margin). (See Fig. 25.) Now the fine-tuned level is stored.

7 Repeat steps 4 to 6 to fine-tune other channels.

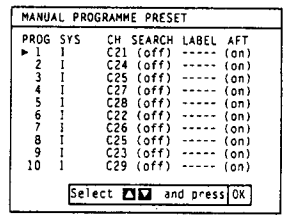

MANUAL PROGRAMME PRESET
PROG SYS CH SEARCH LABEL AFT
▶1 I C21 (off) ----- (on)
2 I C24 (off) ----- (on)
3 I C25 (off) ----- (on)
4 I C27 (off) ----- (on)
5 I C28 (off) ----- (on)
6 I C22 (off) ----- (on)
7 I C26 (off) ----- (on)
8 I C25 (off) ----- (on)
9 I C23 (off) ----- (on)
10 I C29 (off) ----- (on)
Select ▲▼ and press OK

Fig. 23.

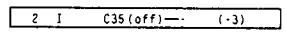


Fig. 24.

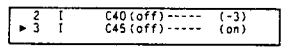


Fig. 25.

PARENTAL LOCK

Parental Lock

You can prevent undesirable broadcasts from appearing on the screen. We suggest you use this function to prevent children from watching programmes which you consider unsuitable.

1 Press MENU to display the main menu.

2 Select Preset with △+ or ▽– and press OK.
The PRESET menu appears.

3 Select Parental Lock with △+ or ▽– and press OK.
The PARENTAL LOCK menu appears. (See Fig. 26.)

4 Using △+ or ▽–, select the programme position you want to block and press OK.
CH and LABEL, of the selected programme number, change colour indicating that this programme is now blocked. (See Fig. 27.)

5 Repeat step 4 to block other programme positions.

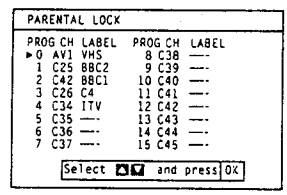

PARENTAL LOCK
PROG CH LABEL PROG CH LABEL
▶0 AV1 VHS 8 C38 —-
1 C25 BBC2 9 C39 —-
2 C42 BBC1 10 C40 —-
3 C26 C4 11 C41 —-
4 C34 ITV 12 C42 —-
5 C35 —- 13 C43 —-
6 C36 —- 14 C44 —-
7 C37 —- 15 C45 —-
Select ▲▼ and press OK

Fig. 26.

If you try to select a programme that has been blocked: The message "LOCKED" appears on the blank TV screen.

Cancelling blocking

1 On the PARENTAL LOCK menu, select the programme position you want to unblock with △+ or ▽–.

2 Press OK.
CH and LABEL change to normal colour indicating that the blocking has been cancelled.

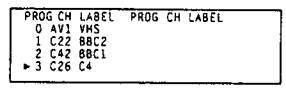
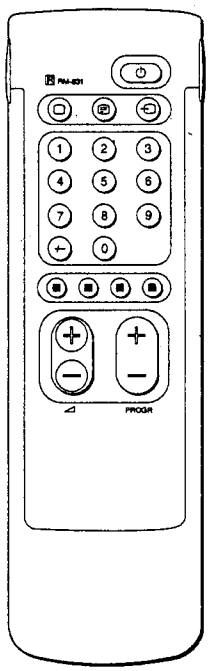


Fig. 27.

Watching the TV



If no picture appears when you depress ⏻ on the TV

and if the standby indicator on the TV is lit, the TV is in standby mode. Press 🖵 or one of the number buttons to switch it on.

This section explains the basic functions you use while watching TV. Most of the operations can be done using the simple side of the Remote Commander.

Switching the TV on and off

Switching on

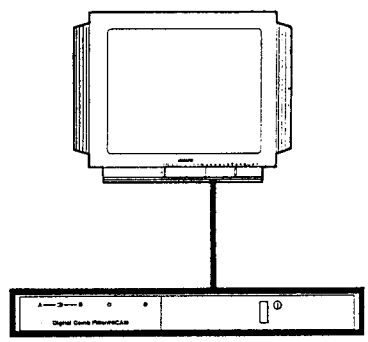
Depress ⏻ on the TV.

Switching off temporarily

Press ⏻ on the Remote Commander.
The TV enters standby mode and the standby indicator on the front of the TV lights up.

To switch on again

Press 🖵, PROGR +/–, or one of the number buttons on the Remote Commander.



Switching off completely

Depress ⏻ on the TV.

Selecting TV Programmes

Press PROGR +/– or press number buttons.

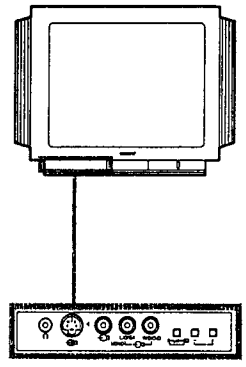
To select a double-digit number

Press –/– –, then the numbers.
For example, if you want to choose 23, press –/– –, 2, and 3.

Adjusting the Volume

Press ◿ +/–.

Operating the TV Using the Buttons on the TV



With the buttons on the TV, you can select programmes, adjust the volume, and select video input sources.

- Press P/⊿/⊖ button repeatedly until the programme number, ⊿ (for volume), or ⊖ (for video input picture) appears. Then adjust with the –/+ buttons.
- Press –/+ buttons to switch on the TV from the standby mode.
- Press –/+ simultaneously to reset picture and sound controls to the factory preset level (RESET symbol →•← is displayed).

Watching Teletext or Video Input

For details of the teletext operation, refer to page 17.

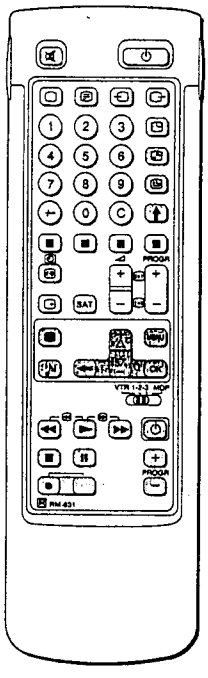
Watching teletext

- Press ☰ to view the teletext.
- Press three number buttons to select a page.
- Press one of the coloured buttons for fastext operation.
- Press ▷ (PAGE +) or ◁ (PAGE –) for the next or preceeding page.
- To go back to the normal TV picture, press ▢.

For details of the video input picture, refer to page 21.

Watching a video input picture

Press ⊖ repeatedly until the desired video input appears. To go back to the normal TV picture, press ▢.



More Convenient Functions

Use the Full-Function side of the Remote Commander.

Displaying the on screen indications

- Press ⊕ once to display all the indications. They will disappear after some seconds.
- Press ⊕ twice to have the programme number and label stay on screen. Press twice again to make indications disappear.

Muting the sound.

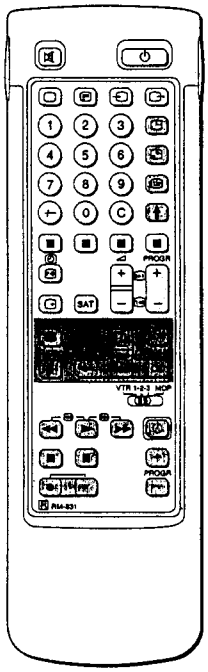
Press 🔇.
To resume normal sound, press 🔇 again.

Displaying the time

Press ⏲. This function is available only when teletext is broadcast.
To make the time display disappear, press ⏲ again.

Adjusting and Setting the TV Using the Menu

PICTURE CONTROL
SOUND CONTROL



Adjusting the Picture and Sound

Although the picture and sound are adjusted at the factory, you can adjust them to suit your own taste. In addition, you can change the aspect ratio of the TV display for wide screen effect, or set the resolution to obtain a higher quality picture. You can also select dual sound (bilingual) programmes when available or adjust the sound for listening with the headphones.

1 Press ● (for picture) or ♪ (for sound) on the Remote Commander.

or

Press MENU and select `Picture Control` or `Sound Control`, then press OK.
The `PICTURE CONTROL` or `SOUND CONTROL` menu appears. (See Fig. 28 or Fig. 29)

2 Using △+ or ▽−, select the item you want to adjust and press OK.The selected item changes colour. (See Fig. 30)

3 Adjust the setting with △+ or ▽ − and press OK.
The cursor appears beside the next item (at the left margin). (See Fig. 31)
For the effect of each control, see the table below.

4 Repeat steps 2 and 3 to adjust other items.

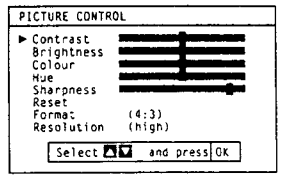


Fig. 28.

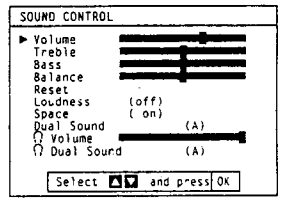


Fig. 29.

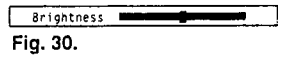


Fig. 30.

Fig. 31.

If you have made a mistake:
Press ← to go back to the previous position.
To go back to the main menu:
Keep pressing ←.
To go back to the normal TV picture:
Press MENU.

Note:
HUE is only available for NTSC colour system and RESOLUTION does not work for SECAM colour system.

Note on LINE OUT:
The audio level and the dual sound mode output from the Ω jack on the rear correspond to the HEADPHONES VOLUME and DUAL SOUND settings.

When watching a video input source with stereo sound:
You can select DUAL SOUND to change the sound.

Effect of each control

PICTURE CONTROL	Effect
Contrast	Less ——I—— More
Brightness	Darker ——I—— Brighter
Colour	Less ——I—— More
Hue	Greenish ——I—— Reddish
Sharpness	Softer ——I—— Sharper
Reset	Resets picture to the factory preset levels.
Format	4 : 3 : Normal 16 : 9 : Wide screen effect
Resolution	Normal high : Obtain a higher quality picture

SOUND CONTROL	Effect
Volume	Less —I— More
Treble	Less —I— More
Bass	Less —I— More
Balance	More left —I— More right
Reset	Resets sound to the factory preset levels.
Loudness	off : Normal on : When listening to low volume sound.
Space	off : Normal on : Obtain acoustic sound effect.
Dual Sound	A : left channel B : right channel stereo mono The selected mode of the A-CD-B indicator on the TV lights up. (for NICAM broadcasts see next page)
Headphones:	
Ω Volume	Less —I— More
Ω Dual Sound	A : left channel B : right channel STEREO MONO

*Selecting Nicam Broadcasts**

This Sony TV has been designed to select Nicam broadcasts when available. Whenever a Nicam broadcast is received, "NICAM" appears briefly on the screen. When the Nicam programme ends, or you switch channels to one without Nicam, the A-CD-B indicators, on the TV will switch off.

Nicam programmes can be broadcast in two ways. You may select the sound you want to hear in either of these by first following the instructions explained on page 16.

Service Being Broadcast	Action	Effect	Indication on the TV A-CD-B
Stereo	Press △+ or ▽–	Stereo Nicam (Mono 2-Channel)	A: ▬ B: ▬
		mono	A: ▭ B: ▭
Press △+ or ▽– again to return to stereo Nicam (mono 2-channel)			
Bilingual	press △+ or ▽–	Channel A Nicam	A: ▬ B: ▭
		Channel B Nicam	A: ▭ B: ▬
		mono	A: ▭ B: ▭
Press △+ or ▽– again to return to channel A Nicam			

* Depending on availability of service.

PROGRAMME TABLE

To go back to the normal TV picture:
Press MENU.

Using the Programme Table

On this table, you can see which channel is preset to which programme position. You can also select programmes using this table.

1 From the main menu, select `Programme Table` with △+ or ▽– and press OK.
The `PROGRAMME TABLE` menu appears. (See Fig. 32)
To scroll to higher programme numbers, press ▽–.

2 To select a programme using this menu select the programme number with △+ or ▽– and press OK.
The selected programme appears.

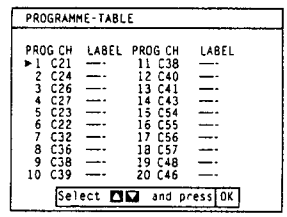

PROGRAMME-TABLE
PROG CH LABEL PROG CH LABEL
▶1 C21 —· 11 C38 —·
2 C24 —· 12 C40 —·
3 C26 —· 13 C41 —·
4 C27 —· 14 C43 —·
5 C23 —· 15 C54 —·
6 C22 —· 16 C55 —·
7 C32 —· 17 C56 —·
8 C36 —· 18 C57 —·
9 C38 —· 19 C48 —·
10 C39 —· 20 C46 —·
Select ▲▼ and press OK

Fig. 32.

TIMER

To switch off the timer:
Select "OFF" in step 3.

To check the remaining time:
Press ⊙.

Using the Sleep Timer

You can select a time period after which the TV automatically switches into standby mode.

1 From the main menu, select `Timer` with △+ or ▽– and press OK.
The `TIMER` menu appears. (See Fig. 33.)

2 Press OK.
The time period option changes colour.

3 Select the time period with △+ or ▽–.
The time period (in minutes) changes as follows:
10→20→30→40→50→60→70→80→90
↑ OFF ←┘

4 After selecting the time period, press OK.
The cursor moves back to the left margin and the timer starts counting.
One minute before the TV switches into standby mode, a message is displayed on the screen.

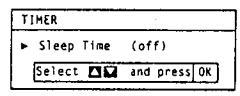
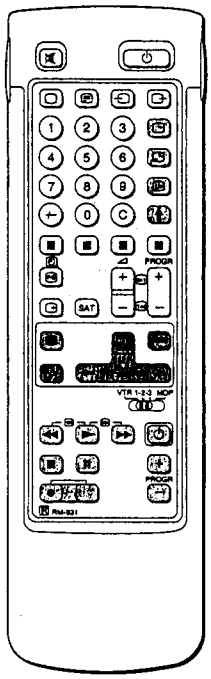


Fig. 33.

Teletext



Note:
Teletext errors may occur if the broadcasting signals are weak.

With the simple side of the Remote Commander:
You can switch teletext on and off, operate Fastext, and directly select page numbers.

TV stations broadcast an information service called Teletext via the TV channels. Teletext service allows you to receive various information pages such as weather reports or news at any time you want. For advanced teletext operation, use the buttons on the Full-Function side of the Remote Commander.

Direct Access Functions

Switching Teletext on and off

1 Select the TV channel which carries the teletext broadcast you want to watch.

2 Press ⊜ to switch on teletext.
A teletext page will be displayed (usually the index page).If there is no teletext broadcast, P100 is displayed on the information line at the top of the screen.

To switch teletext off
Press ▢.

Selecting a teletext page

With direct page selection

Use the number buttons to input the three digits of the chosen page number.
If you have made a mistake, type in any three digits. Then re-enter the correct page number. If the page counter keeps searching, the page number might not be available.

With page-catching

1 Select a teletext page with a page overview (e.g. index page).

2 Press OK. Using △+ or ▽–, select the desired page. "Page Catching" will be displayed on the information line. Press OK. The requested page will appear in a few seconds.

Accessing next or preceding page

Press ⊜ (PAGE +) or ⊜ (PAGE –).
The next or preceding page appears.

Superimposing the teletext display on the TV programme

- Press ⊜ once in teletext mode or twice in TV mode.
- Press ⊜ again to resume normal teletext reception.

Preventing a teletext page from being updated

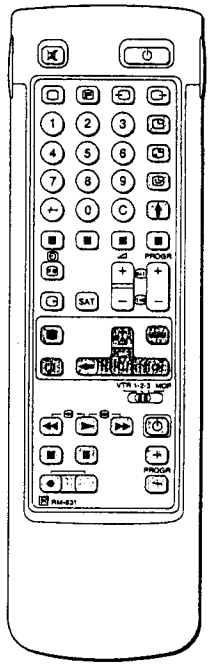
- Press ⊜ (HOLD). The HOLD symbol "⊜" is displayed on the information line.
- Press ⊜ to resume normal teletext reception.

Note:
Fastext operation is only possible, if the TV station broadcasts Fastext signals.

Using Fastext

With Fastext you can access pages with one key stroke.When a Fastext page is broadcast, a colour-coded menu will appear at the bottom of the screen. The colours of this menu correspond to the red, green, yellow and blue buttons on the Remote Commander.
Press the corresponding coloured button on the Remote Commander which corresponds to the colour-coded menu. The page will be displayed after some seconds.

Using the Teletext Menu



Note:
Some of the features may not be available depending on the Teletext service.

Note on Subtitles:
If the subtitles are not broadcast on page 888, please select the subtitle page using the number buttons.

To cancel the request:
Select "Subpage" and press OK.

This TV is provided with a menu-guided teletext system. When teletext is switched on, you can use the menu buttons to operate the teletext menu. Select the teletext menu functions in the following way:

1 Press MENU. The menu will be superimposed on the teletext display. (See Fig. 34)

2 Using △+ or ▽–, select the teletext function you want and press OK. (See Fig. 35)

USER PAGES/PRESET USER PAGES

See page 19 for information about presetting and operating the user pages.

INDEX

The index will give you an overview of the contents of the teletext and the page numbers.

TOP/BOTTOM/FULL

For convenient reading of a teletext page, you can enlarge the teletext display with the ability to scroll up and down the screen. After having selected the function, an information line `Top/Bottom/Full` will be displayed. (See Fig. 36)

Press △+ for `Top` to enlarge the upper half. For `Bottom` keep pressing ▽–, to enlarge the lower half. Press OK for `Full` to resume the normal size.

Press ⓣ to resume normal teletext reception.

TEXT CLEAR

After having selected the function, you can watch a TV programme while waiting for a requested teletext page to be captured (The symbol changes colour) (see Fig. 37).

Press ⓣ to view the requested page.

SUBTITLES

Your teletext service will inform you if a TV programme is subtitled. After having selected the function the subtitles will be displayed.

REVEAL

Sometimes pages contain concealed information, such as answers to a quiz. The reveal option lets you disclose the information. After having selected the function, an information line "REVEAL ON/OFF" will be displayed. (See Fig. 38)

Using △+ or ▽–, select ON to reveal the information or OFF to conceal it again.

Press ⓣ to resume normal teletext reception.

TIME PAGE

This function is not available.

SUBPAGE

You may want to select a particular teletext page from several subpages which are rotated automatically. After having selected the function, an information line will be displayed at the bottom of the screen.

To select the desired subpage, enter four digits using PROGR+/– or the number buttons. (e.g. enter 0002 for the second page of a sequence).

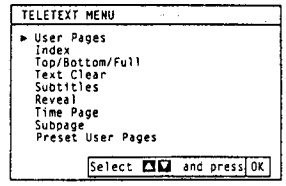


Fig. 34.

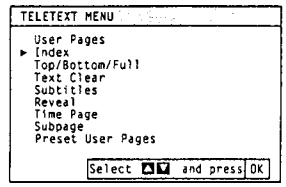


Fig. 35.

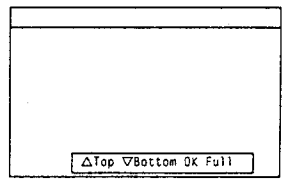


Fig. 36.

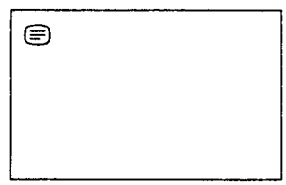


Fig. 37.

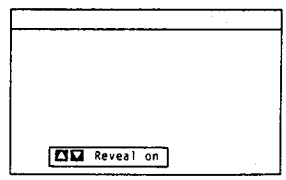


Fig. 38.

If two broadcasting stations use the same Teletext:
You can preset one bank to 2 different programme positions.

User Page Bank System

You can store up to 30 pages in the "Teletext page bank system". In this way you have quick access to the pages you watch frequently.

Storing pages

There are 5 "banks" (A to E) for 5 teletext stations. In each bank you can store 6 preferred pages (P1 to P6).

1 Press ▤ (if Teletext is not on already) and MENU to show the TELETEXT MENU display.

2 Select `Preset User Pages` with △+ or ▽– and press OK.

3 Select the desired bank with △+ or ▽– and press OK. The cursor will go to the first position (P1) of the preferred pages.

4 Input the three digits of your first preferred page with the number buttons and press OK.
The cursor will go to the second position.

5 Repeat step 4 for the other 5 page numbers you want to preset. If you do not want to preset all 6 page numbers available, press OK without inserting any number. After having finished the presetting press OK repeatedly until the cursor appears besides the next bank at the left margin.

6 Select `Allocate Bank` with △+ or ▽– and press OK.

7 Select the programme position for which you want to preset pages with △+ or ▽– and press OK. (See Fig. 39)

8 Select the desired bank with △+ or ▽– (Banks A to E are available) and press OK.

9 Repeat steps 3 to 8 for the other 4 banks available.

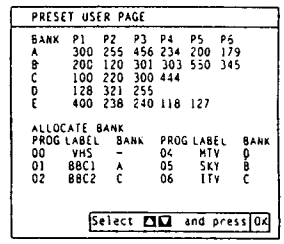

PRESET USER PAGE
BANK P1 P2 P3 P4 P5 P6
A 300 255 456 234 200 179
B 200 120 301 303 530 345
C 100 220 300 444
D 128 321 255
E 400 238 240 118 127
ALLOCATE BANK
PROG LABEL BANK PROG LABEL BANK
00 VHS - 04 MTV D
01 BBC1 A 05 SKY B
02 BBC2 C 06 ITV C
Select ▲▼ and press OK

Fig. 39.

Displaying User Pages

1 Select MENU.

2 Select `User Pages` with △+ or ▽– and press OK.
A table of the stored preferred pages will be displayed.
(See Fig. 40)

3 Select the desired page with △+ or ▽– and press OK. The page will be displayed after some seconds.

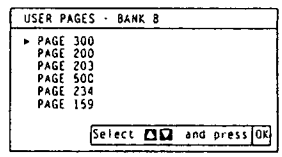


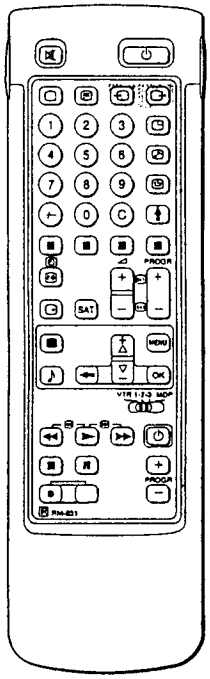
Fig. 40.

Connecting and Operating Optional Equipment

Selecting input and output

This section explains how to view the video input picture (of the video source connected to your TV), and how to select the output signal using direct access buttons or the menu system.

Selecting Input with PROGR +/– or number buttons:
You can preset video input sources to the programme positions so that you can select them with PROGR +/– or number buttons.
For details, see "Preset channels manually" on page 8.



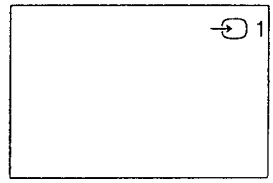
Selecting input

Press ⊣⊙ repeatedly to select the input source.

The symbol of the selected input source will appear.

To go back to the normal TV picture

Press ○.



Input modes

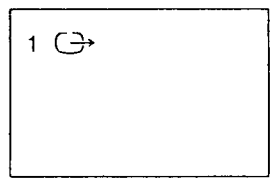
Symbol	Input signal
⊣⊙ 1	Audio/video input through the ⊣⌓ 1 connector
⊣⌓	RGB input through the ⊣⌓ 1 connector
⊣⊙ 2	Audio/video input through the ⊙→2/⊣Ⓢ 2 connector
⊣Ⓢ 2	S video input through the ⊙→2/⊣Ⓢ 2 or ⊣Ⓢ 2 connector
⊣⊙ 3	Audio/video input through ⊣⊙ 3 and ⊣⊙ 3 on the front
⊣Ⓢ 3	S video input through the ⊣Ⓢ 3 connectors on the front (4-pin connector)

You can also select the input mode using the P→⊿→⊣⊙ and –/+ buttons on the TV. In this case, first select ⊣⊙, and then press –/+ buttons to select the input.

Selecting the output

The ⊙→2/⊣Ⓢ 2 connector outputs the source input from the other connectors.

Press ⊙→ repeatedly to select the output.
The symbol of the selected output source appears.



Output modes

Symbol ⊙→2/⊣Ⓢ 2 connector outputs	
1 ⊙→	The audio/video signal from the ⊣⌓ 1 connector
2 ⊙→	The audio/video signal from the ⊙→2/⊣Ⓢ 2 connector
2 Ⓢ→	The audio/S video signal from the ⊙→2/⊣Ⓢ connector
3 ⊙→	The audio/video signal from the ⊣⊙ 3, ⊣⊙ 3 connectors
3 Ⓢ→	The audio/S video signal from the ⊣Ⓢ 3, ⊣⊙ 3 connectors
TV⊙→	The audio/video signal from the ⅂ aerial terminal

Note on LINE OUT:
The audio level and the dual sound mode output from the ⊙→ jack on the rear correspond to the HEADPHONES VOLUME and DUAL SOUND settings.

Checking and selecting the input and output sources using the menu

You can display the menu to see which input sources are selected for the TV screen, and which output source is selected. You can also select them on the menu display.

1 Select `Video Connection` with △+ or ▽– and press OK. The `VIDEO CONNECTION` menu appears. (See Fig. 41)
You can see which source is selected for the TV and for the output. If you want to select the input and output on this menu, go on to the next step.

2 Select TV Screen (input source for the TV screen), or output (output source) with △+ or ▽– and press OK. One of the source items changes colour. (See Fig. 42)

3 Select the desired source with △+ or ▽–.
(See Fig. 43)
For details about each source, see the table on page 22.

4 Press OK.
The selected source is confirmed, and the cursor appears. (See Fig. 44)

5 Repeat steps 2 to 4 to select the source for other inputs or outputs.

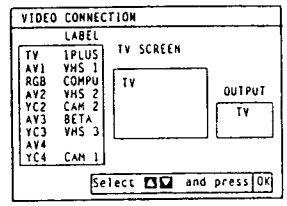


Fig. 41.

Fig. 42.

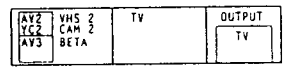


Fig. 43.

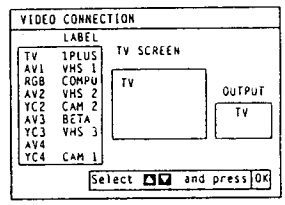


Fig. 44.

Remote Control of Other Sony Equipment

You can use the TV Remote Commander to control most Sony remote-controlled video equipment such as: Beta, 8mm or VHS VTRs or video disc players.

Tuning the Remote Commander to the equipment

1 Set the VTR 1/2/3 MDP selector according to the equipment you want to control:

VTR 1: Beta or ED Beta VTR

VTR 2: 8mm VTR

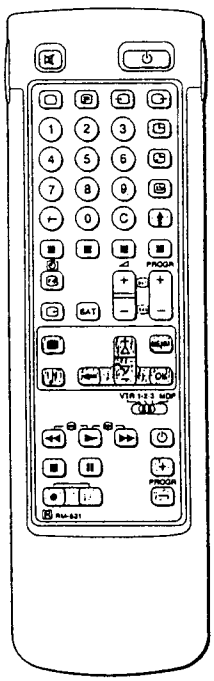
VTR 3: VHS VTR

MDP: Video disc player

2 Use the buttons indicated in the illustration to operate the additional equipment.

If your video equipment is furnished with a COMMAND MODE selector: set this selector to the same position as the VTR 1/2/3 MDP selector on the TV Remote Commander.

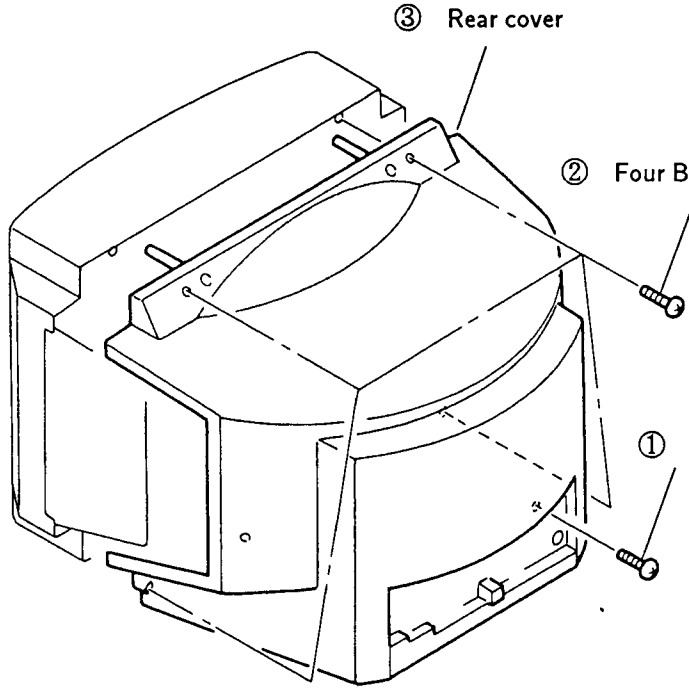
If the equipment does not have a certain function, the corresponding button on the Remote Commander will not operate.



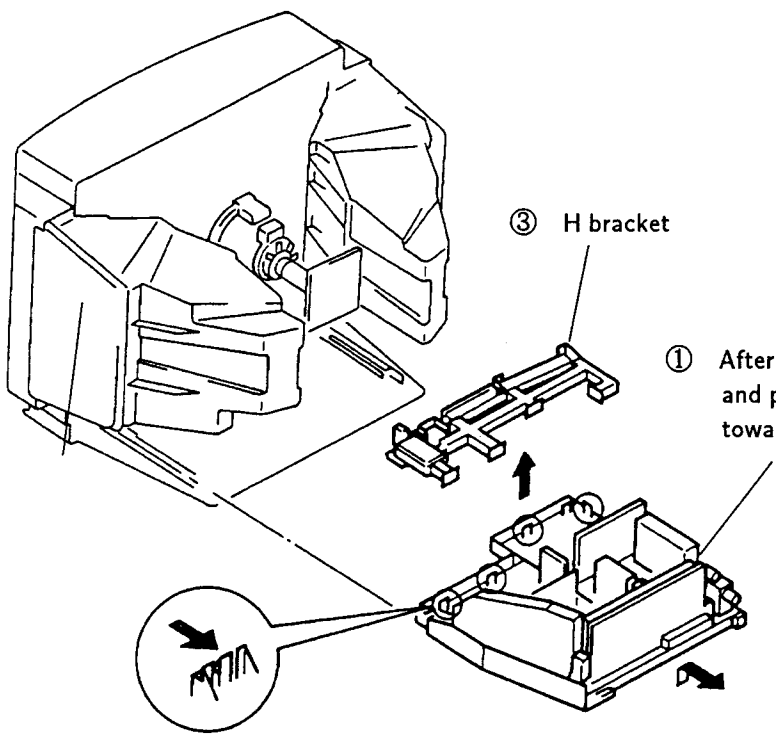
When recording
When you use the ● (record) button, make sure to press this button and the one to the right of it simultaneously.

SECTION 2
DISASSEMBLY

2-1. REAR COVER REMOVAL

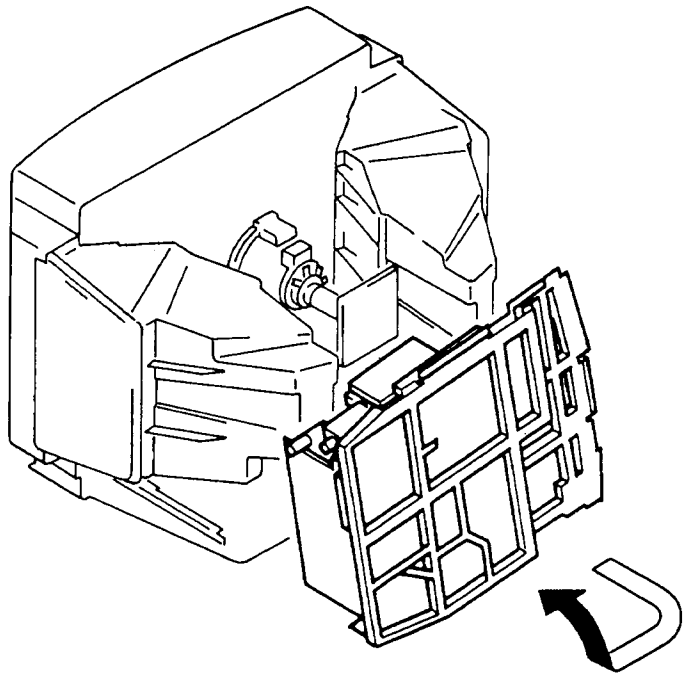


2-2. CHASSIS ASSY REMOVAL

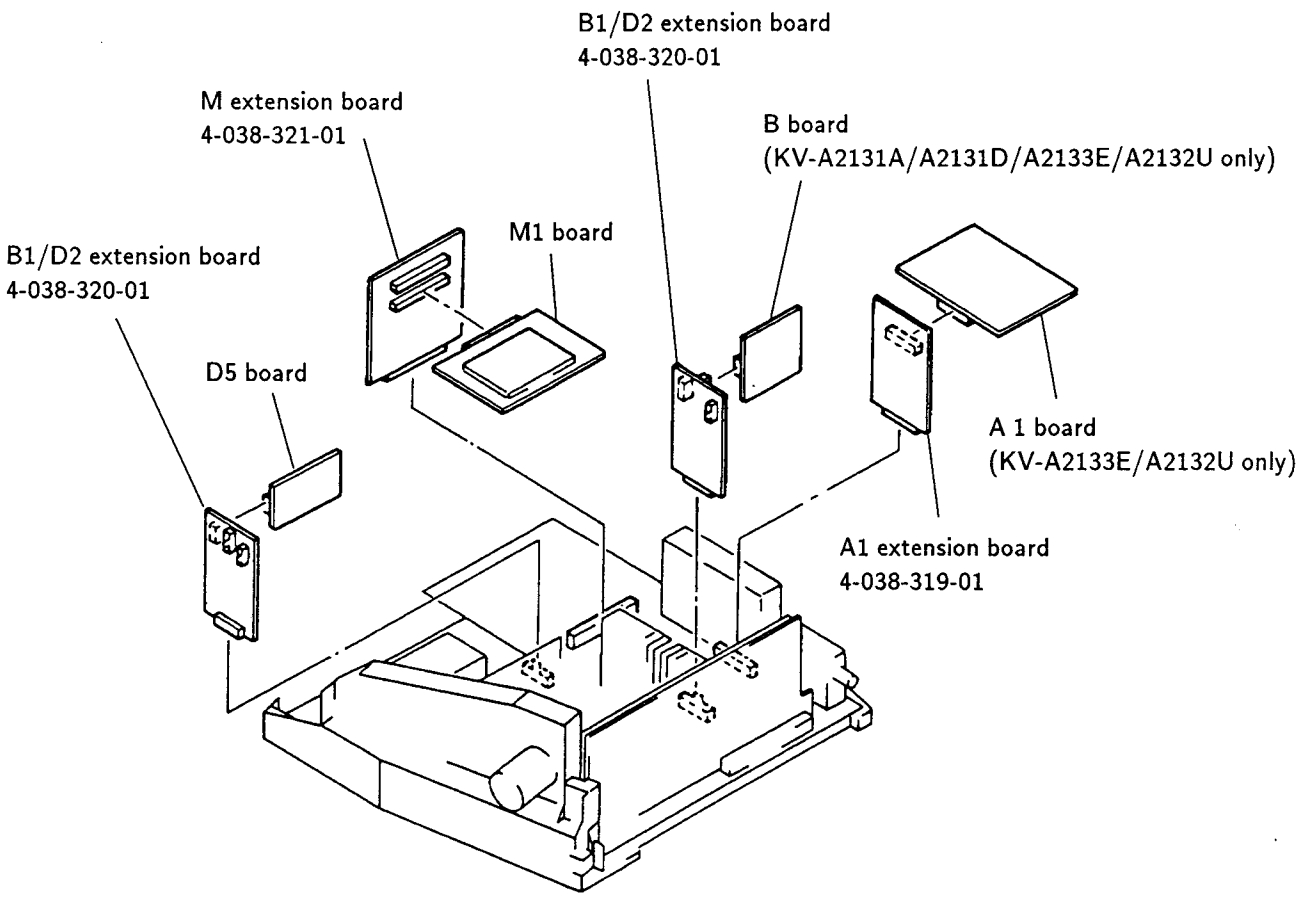


② Push the four claws of the main chassis in the direction of the arrow and remove the H bracket upwards.

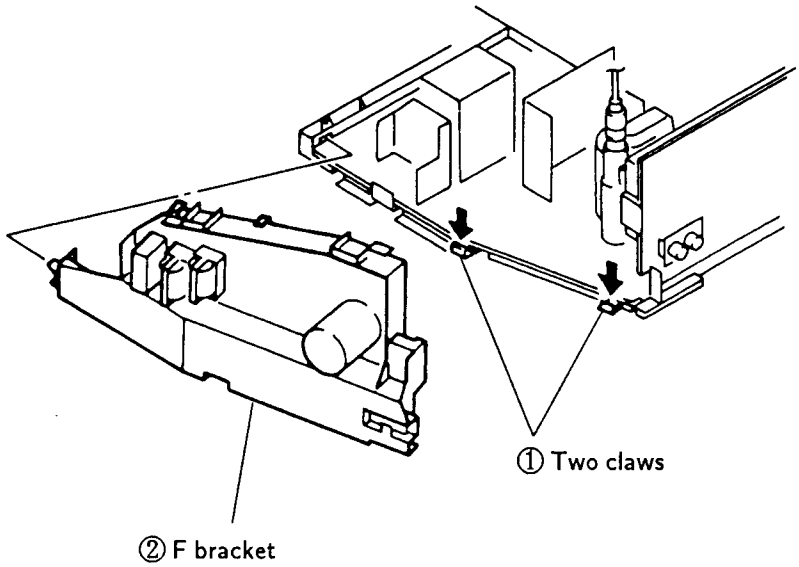
2-3. SERVICE POSITION



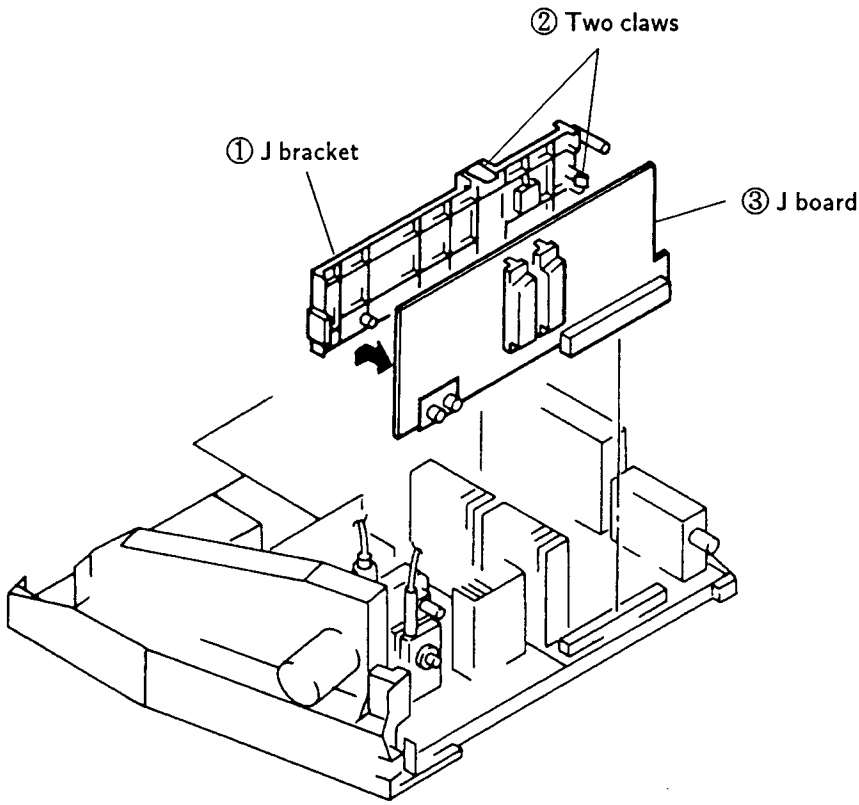
2-4. EXTENSION BOARD



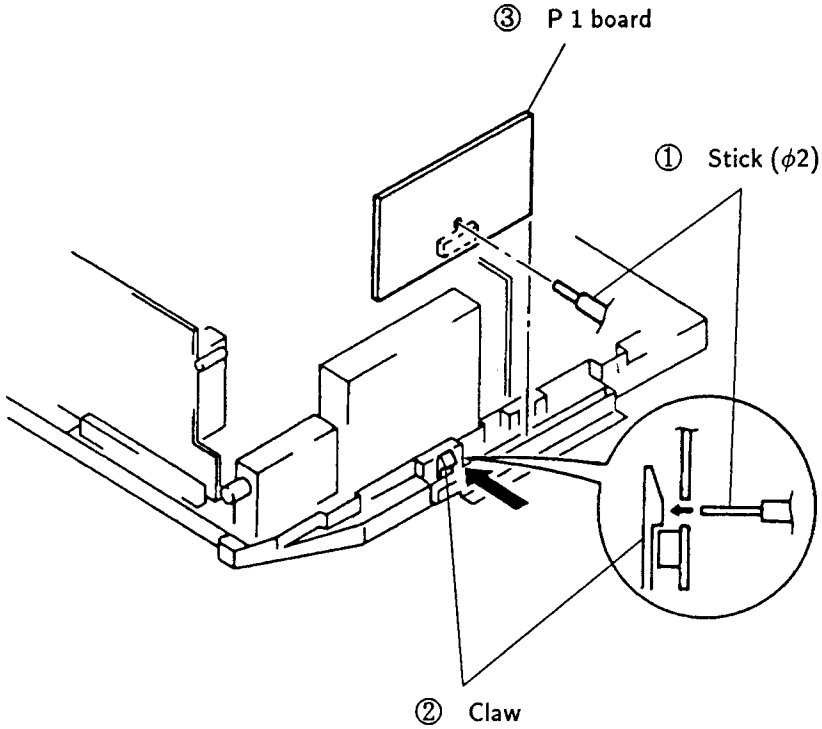
2-5. F BRACKET REMOVAL



2-6. J BOARD REMOVAL

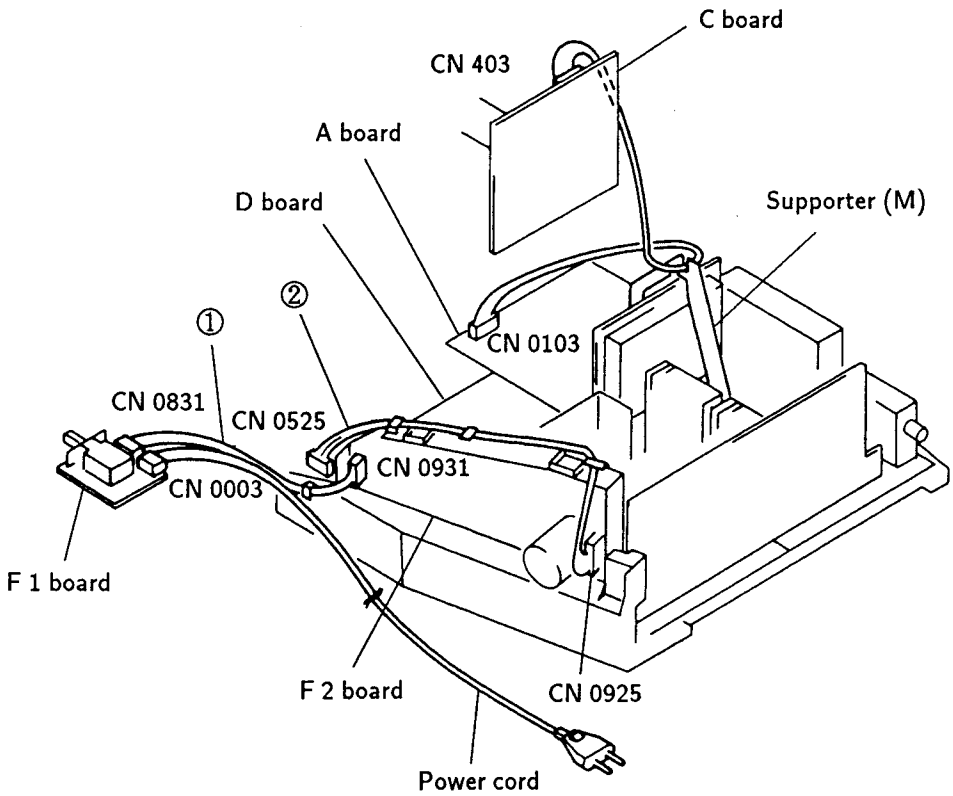


2-7. P1 BOARD REMOVAL (KV-A2131B only)

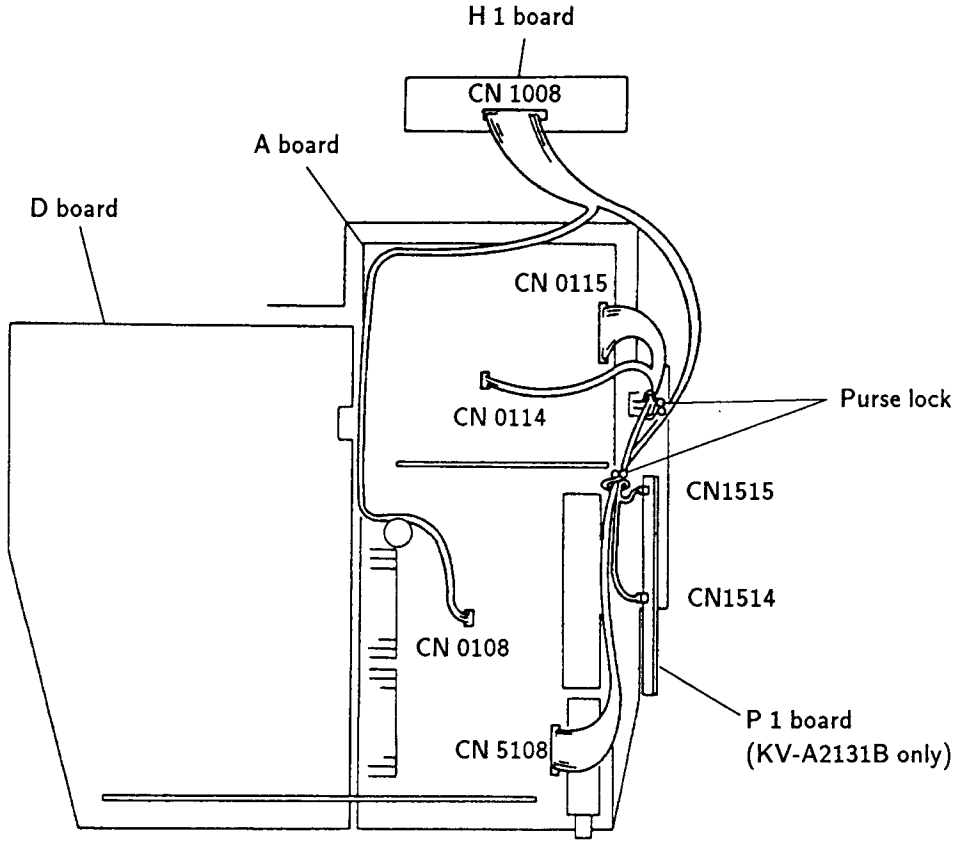


2-8-1. WIRE DRESSING

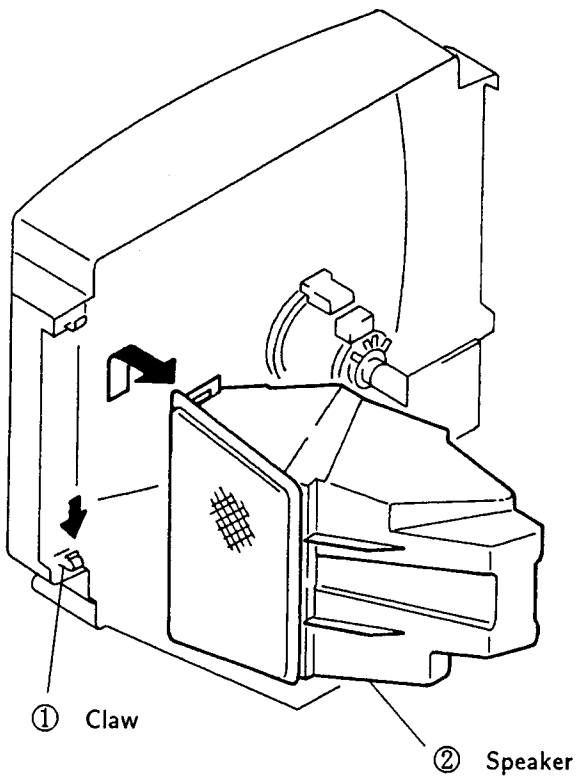
※ Keep distance between ① and ②



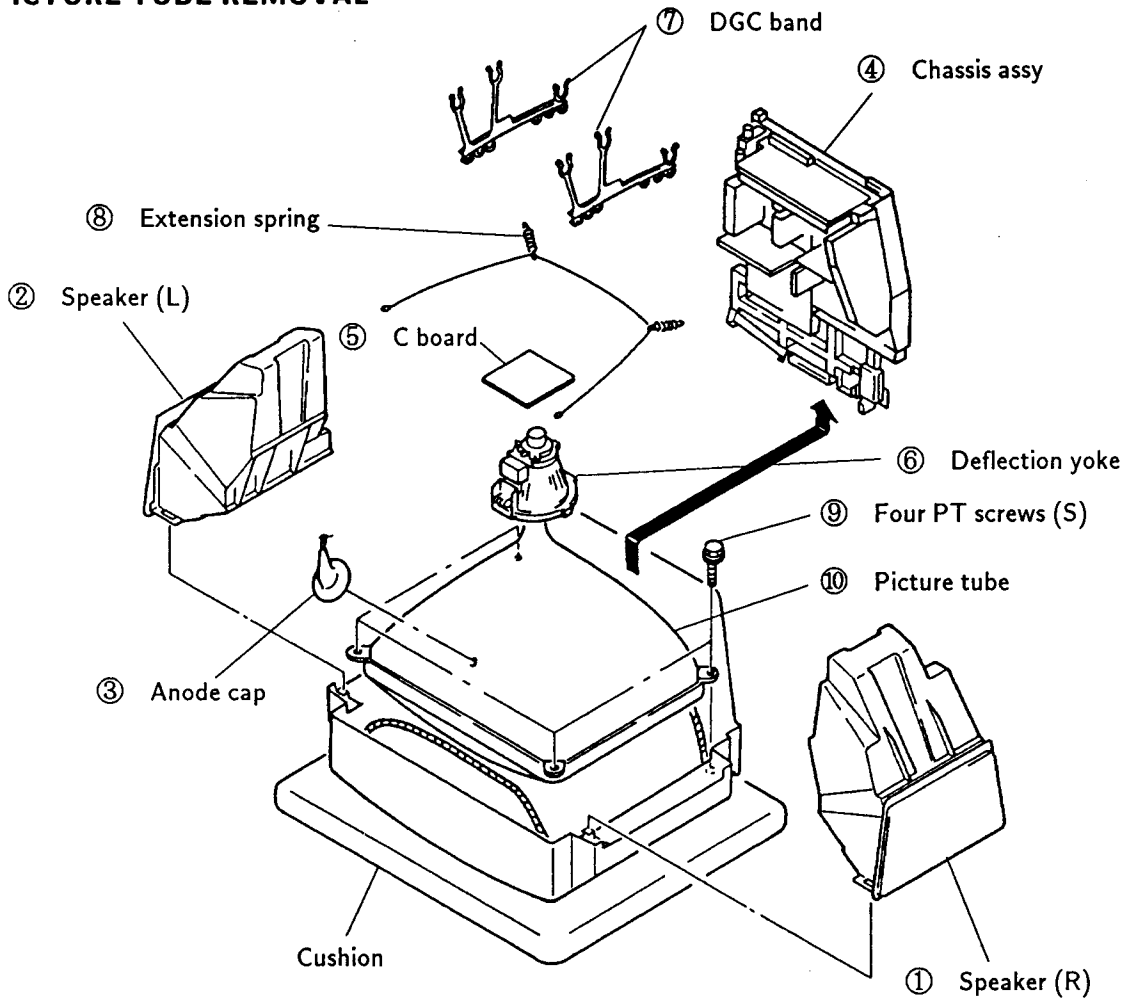
2-8-2. WIRE DRESSING



2-9. SPEAKER REMOVAL



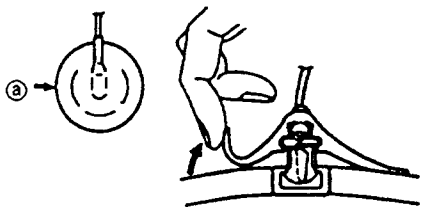
2-10. PICTURE TUBE REMOVAL



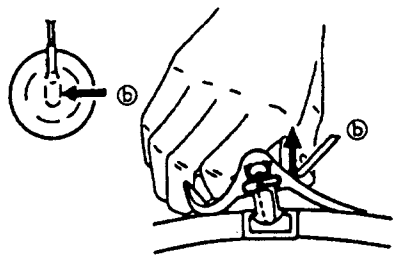
• REMOVAL OF ANODE-CAP

NOTE : Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT, after removing the anode.

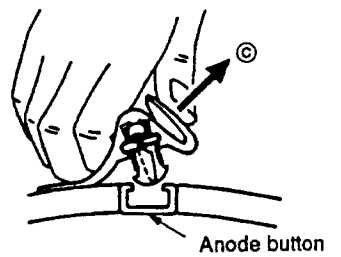
• REMOVING PROCEDURES



① Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ.



② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⓑ.



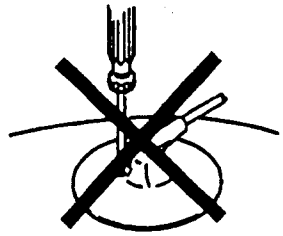
③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow ⓒ.

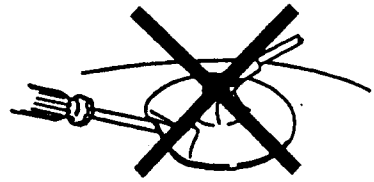
• HOW TO HANDLE AN ANODE-CAP

① Don't hurt the surface of anode-caps with sharp shaped material!

② Don't press the rubber hardly not to hurt inside of anode-caps!
A material fitting called as shatter-hook terminal is built in the rubber.

③ Don't turn the foot of rubber over hardly!
The shatter-hook terminal will stick out or hurt the rubber.





SECTION 3
SET-UP ADJUSTMENTS

● The following adjustments should be made when a complete realignment is required or a new picture tube is installed.

● These adjustments should be performed with rated power supply voltage unless otherwise noted.

The controls and switch below should be set as follows unless otherwise noted :

◑ CONTRASTcontrol ..... 80%(or Normal by commander)

☼ BRIGHTNESS control 50%

Perform the adjustments in order as follows:

1. Beam Landing
2. Convergence
3. Focus
4. Screen (G 2) and White Balance

Note: Test Equipment Required.

1. Color bar/Pattern Generator
2. Degausser
3. DC Power Supply
4. Digital multimeter
5. Oscilloscope

Preparation:

● Set the side of the unit with the PICTUE TUBE so that it faces east or west in order to reduce the influence of external magnetic force.

● Turn the power switch for the unit ON and erase the magnetic force using a degausser..

3-1. BEAM LANDING

Demagnetize with a degausser

1. Input a raster signal with the pattern generator.
   CONTRAST, BRIGHTNESS } normal
2. Turn the raster signal of the pattern generator to red.
3. Move the deflection yoke backward, and adjust with the purity control so that red is in the center and blue and green are at the sides evenly. (Fig.3-1 - 3-3)
4. Move the deflection yoke forward, and adjust so that the entire screen becomes red. (Fig.3-1)
5. Switch over the raster signal to blue and blue and confirm the condition.
6. When the position of the deflection yoke is determined,tighten it with a deflection yoke mounting screw.
7. When landing at the corner is not right, adjust by using the disk magnets. (Fig.3-4)

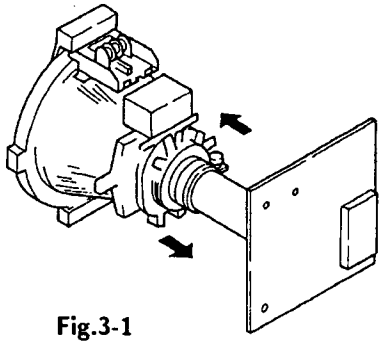


Fig.3-1

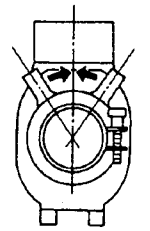


Fig.3-2

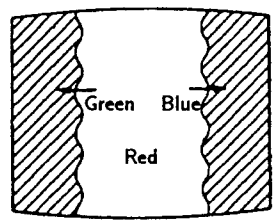


Fig.3-3

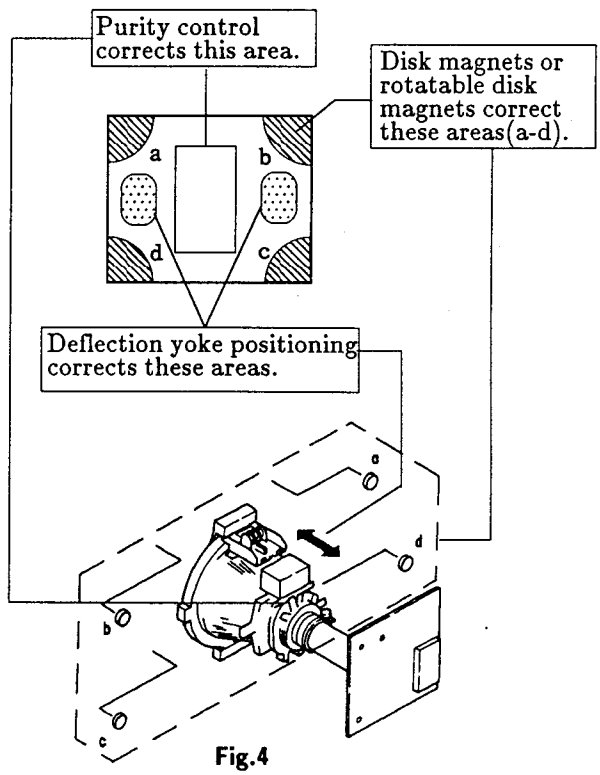


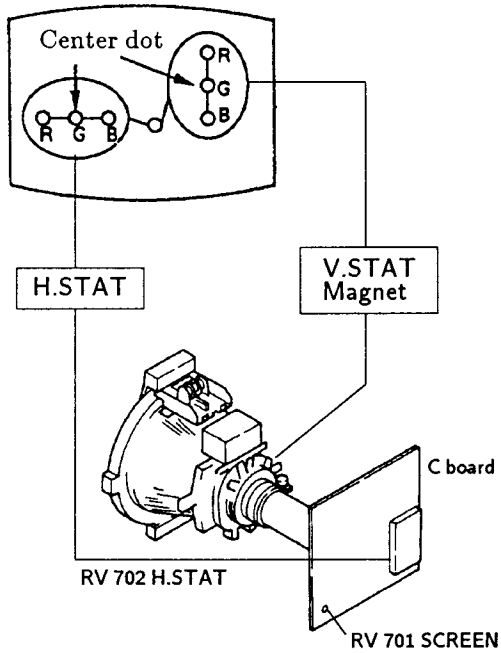
Fig.4

3-2. CONVERGENCE

Preparation:

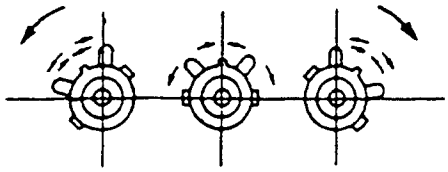
- Before starting, perform FOCUS, H.SIZE, and V. SIZE adjustments.
- Set BRIGHTNESS control to minimum.
- Feed in the dot pattern.

(1) Horizontal and Vertical Static Convergence

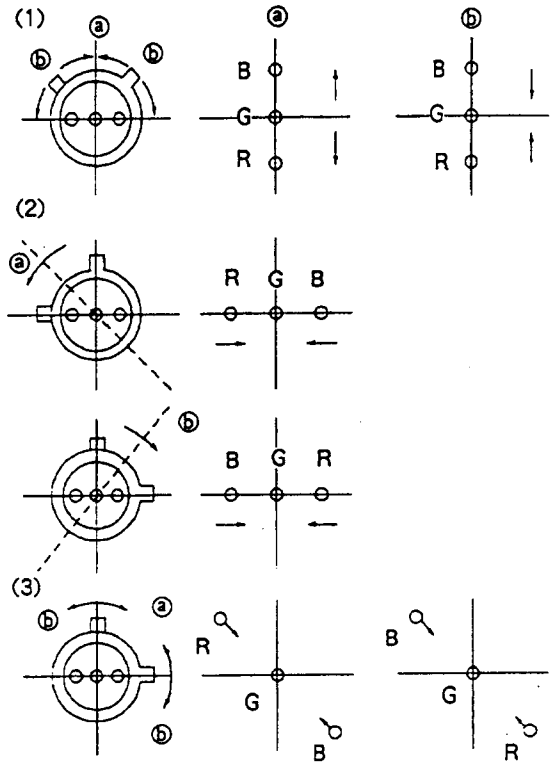


1. Adjust H.STAT VR to converge red, green and blue dots the in center of the screen.(Horizontal movement)
2. Adjust V. STAT magnet to converge red, green and blue dots in the center of the screen. (Vertical movement)
3. If the red, green and blue dots do not converge on the center of screen with H.STAT VR, perform horizontal convergence adjustment using H.STAT VR and V.STAT magnet as shown below. (In this case, H.STAT VR and V.STAT magnet effect each other.)

- Tilt the V.STAT magnet and adjust static convergence to open or close the V.STAT magnet.



4.When the V.STAT magnet is moved in the direction of arrow ⓐ and ⓑ, red, green and blue dots move as shown below.

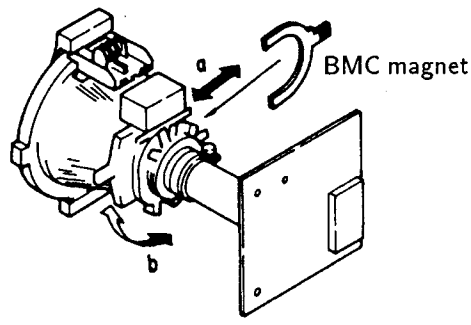


If the red and blue dot do not converge with green dots, perform following steps.

Move BMC magnet (a) to correct insufficient H.static convergence.

Rotate BMC magnet (b) to correct insufficient V.static convergence.

In either case, repeat Beam Landing Adjustment.

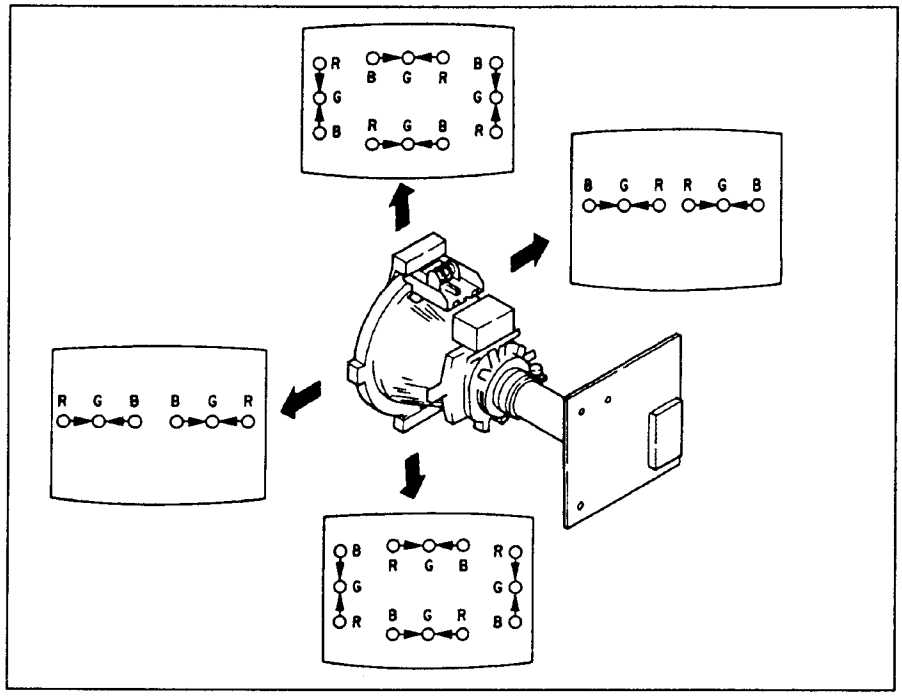


(2)Dynamic Convergence Adjustment

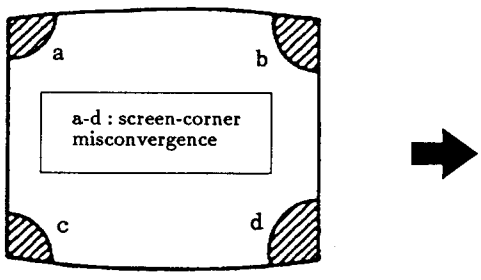
Preparation:

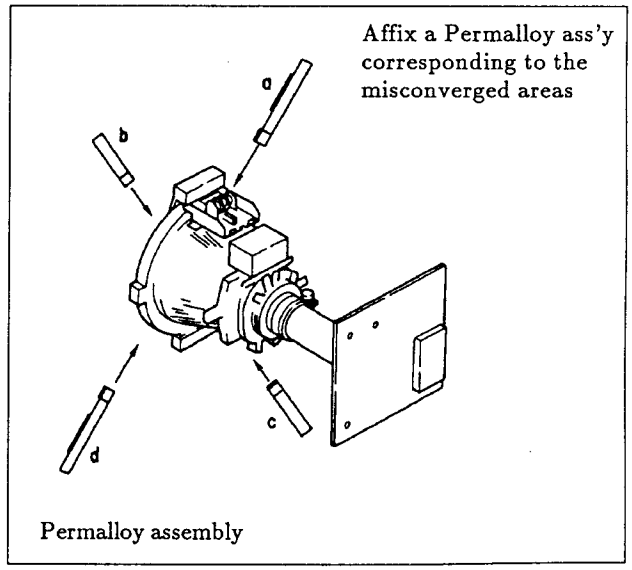
● Before starting perform Horizontal and Vertical static convergence Adjustment.

1. Slightly loosen deflection yoke screw.
2. Remove deflection yoke spacers.
3. Move the deflection yoke for best convergenceas shown below.
4. Tighten the deflection yoke screw.
5. Install the deflection yoke spacers.



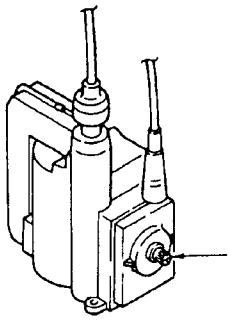
(3) Screen-corner Convergence





3-3. FOCUS

Adjust FOCUS so that the whole screen is in best focus.



3-4. WHITE BALANCE

Screen G2 Setting

1. Input the dot signal from the pattern generator.
2. Set the picture brightness control to its lowest level.
3. Apply 180V DC to the R,G, and B cathodes with an external power supply.
4. While watching the picture, adjust G 2 control RV 701 (Screen) to the point just before the return lines disappear.

White balance adjustment

1. Receive all-white signal.
2. Enter into service mode. (Refer to the section 4 "Electrical Adjustment" to how to enter service mode.)
3. Select CXA 1587 on menu.

09	SUB BRIGHT	ADJ.
10	SUB HUE	7
11	VM LEVEL	2
12	NR LEVEL	0
13	ABL MODE	0
14	G-DRIVE	ADJ.
15	B-DRIVE	ADJ.
16	G-AUTO CUT OFF	ADJ.
17	B-AUTO CUT OFF	ADJ.
18	R-MANUAL CUT OFF	ADJ.
19	G-MANUAL CUT OFF	ADJ.
20	B-MANUAL CUT OFF	ADJ.

4. Set picture to MAX.
5. Adjust G-DRIVE B-DRIVE with ▲, ▼ buttons so that the white balance becomes optimum.
6. Press OK button to write the data for each item.
7. Set picture to MIN.
8. Adjust G-AUTO CUT OFF, B-AUTO CUT OFF, R -MANUAL CUT OFF, G-MANUAL CUT OFF and B-MANUAL CUT OFF with ▲, ▼ buttons so that the white balance becomes optimum.
9. Press OK button to write the data for each item.

SECTION 4
CIRCUIT ADJUSTMENTS

4-1. ELECTRICAL ADJUSTMENTS

Service adjustment to this model can be performed with the supplied remote commander RM-831.

HOW TO ENTER INTO SERVICE MODE

1. Turn on the main power switch of the set while pressing any two buttons on the front panel.

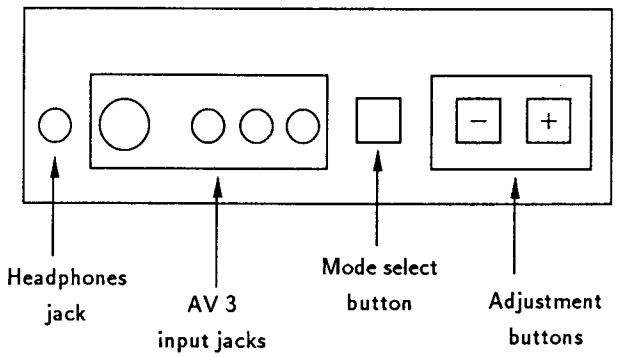


Fig.4-1

2. "TT" will appear on the upper right corner of the screen.

Command operation in service mode

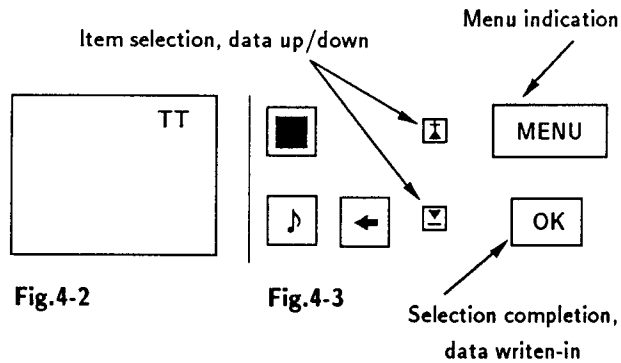


Fig.4-2 Fig.4-3

3. Press the MENU button of the commander to get the menu on screen.

MAIN MENU
Programme Table
Video Connection
Picture Control
Sound Control
Timer
Preset
Language
> DEMO
Select < > and press OK

Fig.4-4

4. Press the ↑ and ↓ buttons of the commander and move > to DEMO.
5. Press OK button to proceed to the next menu.
6. The menu of fig.4-5 will appear on screen. Select DEVICE corresponding to the adjustment item from the table on next page.

DEVICE
Initialize
> CXA1587S
CXD 2018
TDA 9145
TDA 1526
TDA 6612
CXA 7948 A
P/P service
Select < > and press OK

Fig.4-5

7. If adjustment item is CXA1587S, press the ↓ button and move > to CXA1587S.

CXA 1587 S

	Item No.	Adjustment item	Data Amout
	01	PICTURE	3
	02	COLOR	1
	03	BRIGHT	1
	04	HUE	1
	05	SHARPNESS	7
	06	RGB PICTURE	3
	07	SUB CONTRAST	ADJ.
	08	SUB COLOR	ADJ.
>	09	SUB BRIGHT	ADJ.
	10	SUB HUE	7
	11	VM LEVEL	2
	12	NR LEVEL	0
	13	ABL MODE	- 0
	14	G-DRIVE	ADJ.
	15	B-DRIVE	ADJ.

8. Press OK button to get the next selection menu.
9. Press ↓ button and move > to the adjustment item and press OK button.
10. Press the ↑ and ↓ buttons to change the data in order to comply each standard.
11. Press OK button to write data.
12. Turn off the power to quit service mode when completing the adjustment.

CXA 1587 S

01	PICTURE	53
02	COLOR	31
03	BRIGHT	31
04	HUE	31
05	SHARPNESS	7
06	RGB PICTURE	13
07	SUB CONTRAST	ADJ.
08	SUB COLOR	ADJ.
09	SUB BRIGHT	ADJ.
10	SUB HUE	7
11	VM LEVEL	2
12	NR LEVEL	0
13	ABL MODE	0
14	G-DRIVE	ADJ.
15	B-DRIVE	ADJ.
16	G-AUTO CUT OFF	ADJ.
17	B-AUTO CUT OFF	ADJ.
18	R-MANUAL CUT OFF	ADJ.
19	G-MANUAL CUT OFF	ADJ.
20	B-MANUAL CUT OFF	ADJ.
21	GAMMA LEVEL	0
22	DC TRANSFER RATIO	3
23	DINAMIC PICTURE	0
24	Y FILTER ADJ	ADJ.
25	Y DELAY TIME	15
26	Y DELAY SWITCH 1	0
27	Y DELAY SWITCH 2	1
28	SHARPNESS LIMIT	ON
29	ALL BLK	OFF
30	H SHIFT	31
31	DAC TEST	ON
32	PRE/OVER SHOOT	12
33	SHARPNESS FO	2
34	SUB SHARPNESS	3
35	R MUTE	OFF
36	G MUTE	OFF
37	B MUTE	OFF
38	AGING 1	OFF
39	AGING 2	OFF
40	AKB OFF	ON
41	INHIBIT RGB	OFF
42	FORCED RGB	OFF
43	V/2 V	OFF
44	AXIS	PAL
45	HUE SW	OFF
46	V EXTENTION	OFF
47	AFC 1	1
48	AFC 2	0
49	AFC OFF	ON
50	REF.POSITION	0

CXD 2018 Q

01	V SIZE	ADJ.
02	V SHIFT	ADJ.
03	S CORRECTION	ADJ.
04	V LINEARITY	ADJ.
05	H SIZE	ADJ.
06	PIN AMP	ADJ.
07	TILT	ADJ.
08	UPPER CORNER	ADJ.
09	LOWER CORNER	ADJ.
10	V BOW	ADJ.
11	ANGLE	ADJ.
12	HV COMP.V	13
13	HV COMP.H	8
14	FRAME SHIFT	OFF
15	FREE RUN 60 Hz	OFF
16	SYSTEM 60 Hz	OFF
17	ASPECT WIDE	OFF
18	DOUBLE SCAM	OFF
19	INTERLACE	ON
20	H SHIFT	32
21	N/S CORRECTION	ADJ.

Typical Value (OSD based)when receiving PAL Philips pattern.

TDA 6612	ADJ.
Stereo-Separation	(30)

Should be adjusted twice 4 : 3 and 16 : 9 mode.

Y FILTER ADJUSTMENT

1. Input PAL RED pattern.
2. Connect an oscilloscope to CN 0403 ① pin (R IN) on the C board.
3. Enter into service mode and press 3, 8.
4. Adjust data by △ or ▽ to minimize the chroma element of CN 0403 ① pin.

SUB BRIGHTNESS ADJUSTMENT

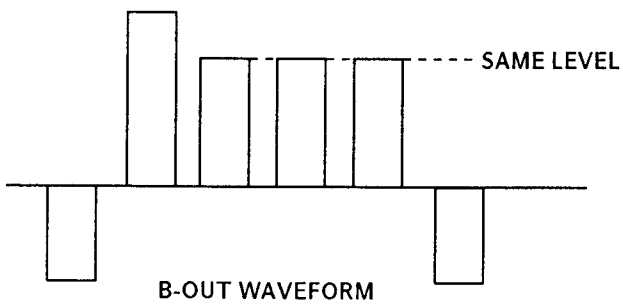
1. Input Phillips pattern.
2. Enter into service mode and press 23.
3. Adjust data so that 0-IRE of the grey scale and CUT -OFF 20-IRE glitter slightly.

SUB CONTRAST ADJUSTMENT

1. Input a video that contains small 100% area on the Black Back ground.
2. Enter into service mode and press 01 to have PIC max followed by 21.
3. Adjust data so that 2.5 Vp-p can be obtained at ① CN 0403 (R IN).

SUB COLOR ADJUSTMENT

1. Input PAL color bar.
2. Connect an oscilloscope to CN 0403 ③ pin (B IN) on the C board.
3. Enter into service mode and press 22 of CXA 1587 S, 8 SUB COLOR.
4. Adjust data so that the right sides of the waveform will be the same.



STEREO-SEPARATION ADJUSTMENT

1. Input 1 kHz stereo signal to the L-ch and 400 Hz stereo signal to the R-ch.
2. Enter into service mode and press 19.
3. Adjust data so that sound does not leak to the R-ch and the L-ch.

DRIVE AND CUT OFF

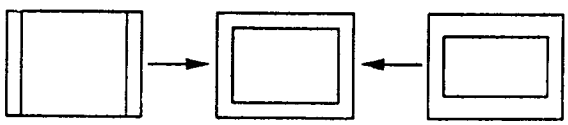
See direct test mode list attached and refer to sub brightness or such for adjustment method.

DEFLECTION SYSTEM ADJUSTMENT

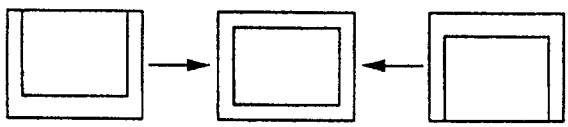
1. Enter into service mode and select CXD 2018 Q.
2. Select and adjust each item in order to get an optimum image.

01	V SIZE	ADJ.
02	V SHIFT	ADJ.
03	S CORRECTION	ADJ.
04	V LINEARITY	ADJ.
05	H SIZE	ADJ.
06	PIN AMP	ADJ.
07	TILT	ADJ.
08	UPPER CORNER	ADJ.
09	LOWER CORNER	ADJ.
10	V BOW	ADJ.
11	ANGLE	ADJ.
12	HV COMP.V	13
13	HV COMP.H	8
14	FRAME SHIFT	OFF
15	FREE RUN 60 Hz	OFF
16	SYSTEM 60 Hz	OFF
17	ASPECT WIDE	OFF
18	DOUBLE SCAM	OFF
19	NON INTERLACE	ON
20	H SHIFT	31
21	N/S CORRECTION	ADJ.

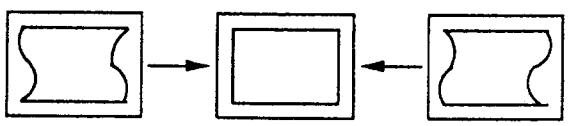
V SIZE



V SHIFT

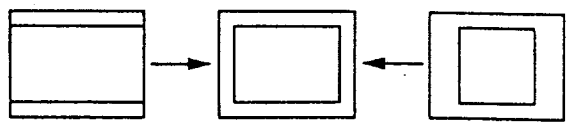


S CORRECTION

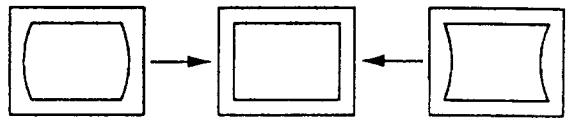


V LINEARITY

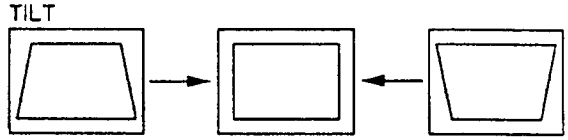
H SIZE



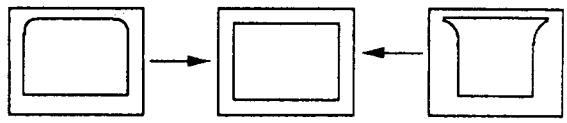
PIN AMP



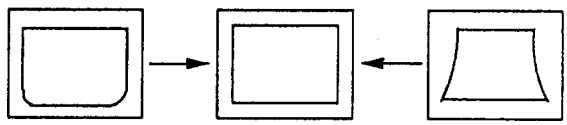
TILT



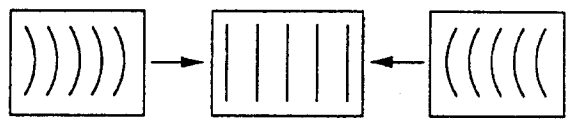
UPPER CORNER PIN



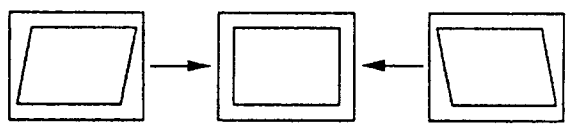
LOWER CORNER PIN



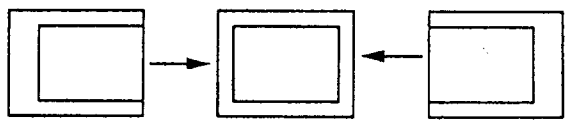
V BOW



ANGLE



H SHIFT



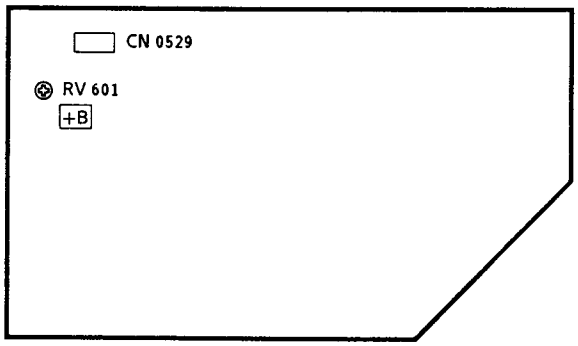
3. Press OK button to write the data.

If menu display may disturb the adjustment press 🔇 to clear, to resume it, press 🔇 again.

4-2. VOLUME ELECTRICAL ADJUSTMENTS

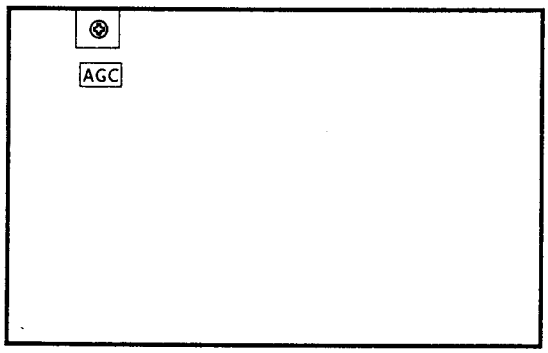
+B (+135 V) ADJUSTMENT (RV 601)

D BOARD



1. Turn on the power of the TV set.
2. Connect a digital multi-meter to ① pin of CN 0529 on D board.
3. Adjust RV 601 on D board to +135 V.

AGC ADJUSTMENT (IF BLOCK)



1. Receive off-air signal.
2. Adjust AGC VR so that there is no snow noise and cross-modulation.
3. Change receiving channel and confirm status.

4-3. TEST MODE 2 :

Is available by pressing Test button two times, OSD "TT"appears. The functions described bellow are available by pressing the two numbors. To release the Test Mode 2, press two times 0, or switch TV in Standby Mode.

00	switch Test Mode 2 off
01	picture maximum
02	picture minimum
03	Volume 35%
04	Volume 50%
05	Volume 65%
06	Volume 80%
07	Aging Condition (Volumin., Picture max., Brightness max., Aging 2 Mode of CXA 1587S, TDA 2595 is locked to CXA 1587S via PIN 34 of μ-Con.)
08	Shipping Condition (Analog Values are RESET due to factory setting, Prog 1 is selected, TT Mode is switched off)
09	dummy
10	Tenth entry is deleted
11	Balance
12	Hue
13-14	dummy
15	Read factory setting from NVM Reads Volume, Balance, Treble, Bass, Brightness, Contrast, Hue, Sharpness, Colour values from ROM to the actual used values (Last Power Memory)
16	Save actual used values as RESET values Memorize actual used values Balance, Treble, Bass, Hue, Sharpness at RESET position in NVM
17	Preset Lavel for AV Sources
18	dummy
19	Stereo Seperation
20	Tenth entry is deleted
21	Sub Contrast
22	Sub Colour
23	Sub Brightness
24-29	dummy

30	Tenth entry is deleted
31	Green Drive
32	Blue Drive
33	Green Cut Off (Auto Cut Off)
34	Blue Cut Off (Auto Cut Off)
35	Red Cut Off (Manual Cut Off) (Auto Cut Off is switched off)
36	Green Cut Off (Manual Cut Off) (Auto Cut Off is switched off)
37	Blue Cut Off (Manual Cut Off) (Auto Cut Off is switched off)
38	Y-Filter adjustment (Trap is switched off and TDA 9145 is switched in forced NTSC Mode)
39	dummy
40	Tenth entry is deleted
41	Default setting of CXA 1587S (Only in Plog 99 available)
42	Default setting of CXA 2018Q (Only in Plog 99 available)
43	Default setting of CXA 1526 (Only in Plog 99 available)
44	(all Port High) Not yet
45	(all Port High) Not yet
46-48	dummy
49	Erease the NVM Testbyte (this byte detects already stored NMV's) After selecting this function, switch TV Off and On → the NVM will be preset by μ-Controller. (Not the channel data)

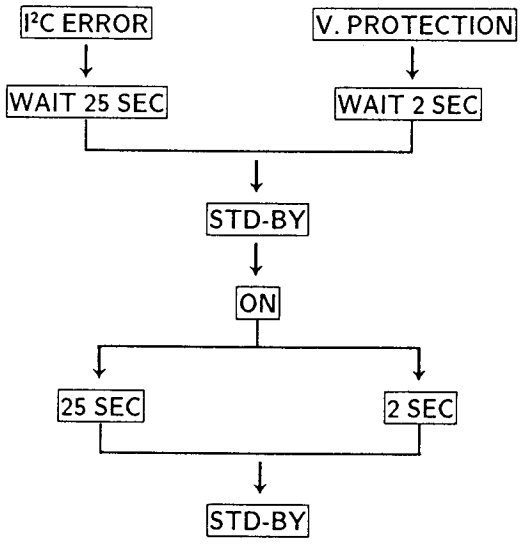
Note: For No. 35, 36, 37 and 38 special pressing (AKB, forced Color Mode, Trap) is selected. After selecting a new Test Mode Number, the AKB is switched ON, the Trap is switched On and TDA 9145 is switched to Auto Search Mode.

In Test Mode 2 the Menu display is switchable by Speaker-Off button.

4-4. ERROR MESSAGE

Self diagnos system can operates as follows.

- When MP can't get the acknowledge back from the device, LED starts flashing according to the table as attached.



In case of more errors in parallel, the blinking error shows max. Priority according to the error number (e.g. error 2 and error 5 appears together, then LEDs shows error 2) .

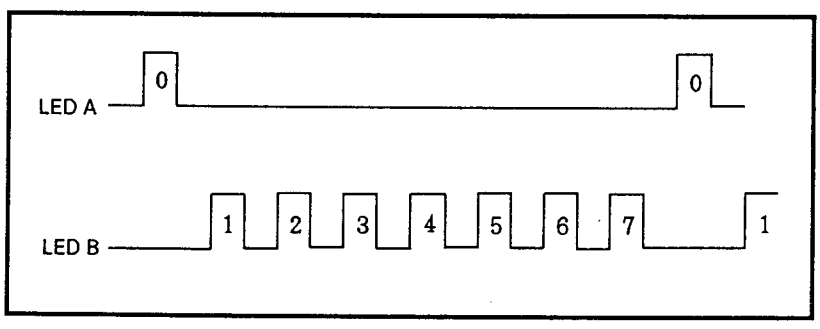
TABLE OF ERRORS

ERROR COUNT	IC TYPE	FUNCTION
1	Ⅱ C BUS	SDA low
2	X 24 C 16	EEPROM
3	SDA 3202	Tuner PII
4	TDA 9145	Colour decoder
5	CXA 1587S	RGB/Jungle
6	TDA 6612	Sound processor
7	CXD 2018Q	V deflection
8	CXA 1545	AV switch
11	SDA 5248	Text
13		V protection
Stand by LED blinking		No IK return

4-5. ERROR Ⅱ C BUS DIAGNOSIS SYSTEM IN AE-2A CHASSIS AVAILABLE

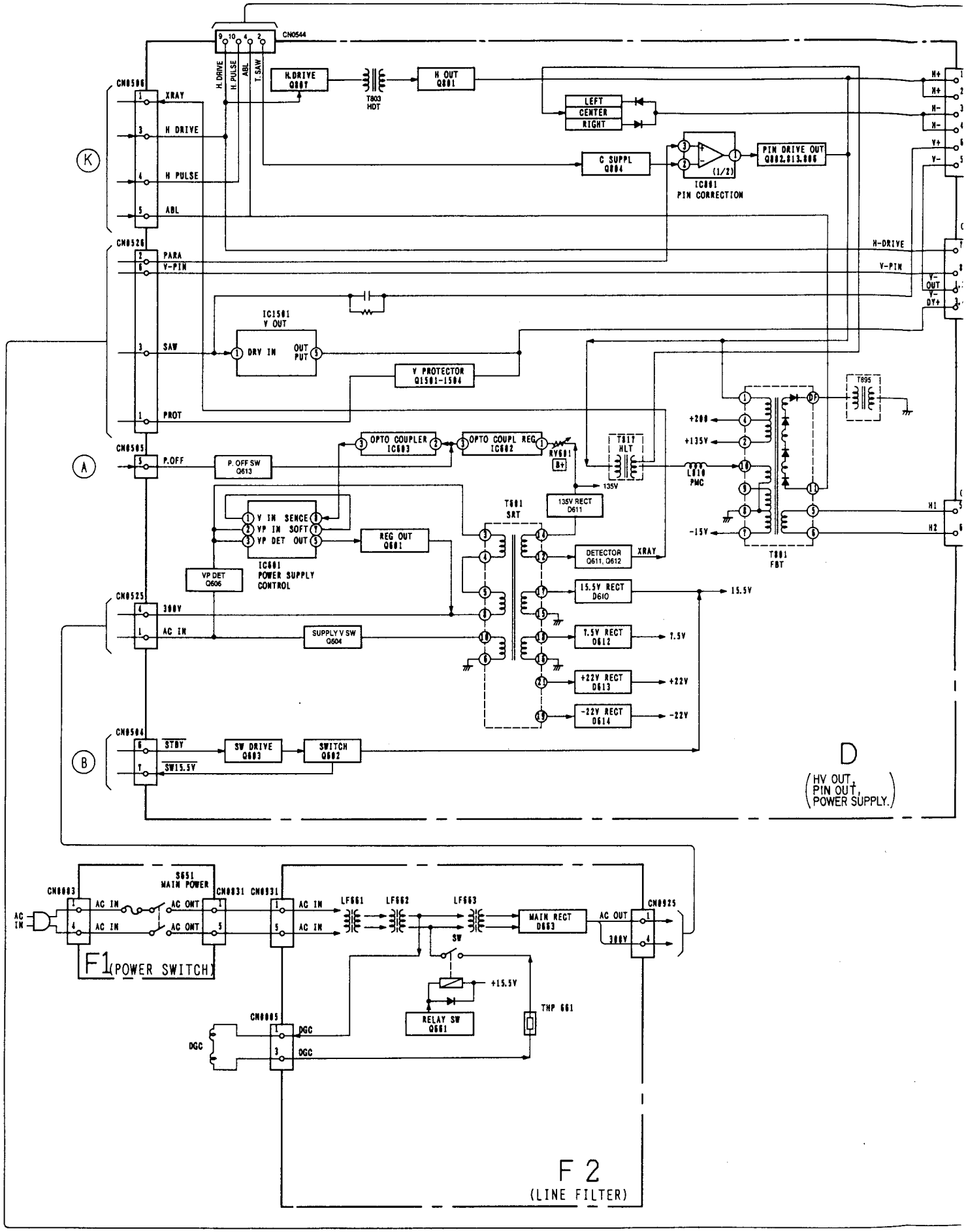
For all ICs in AE-2A chassis which are necessary to get picture and sound there is a built in error I²C Bus diagnosis system.

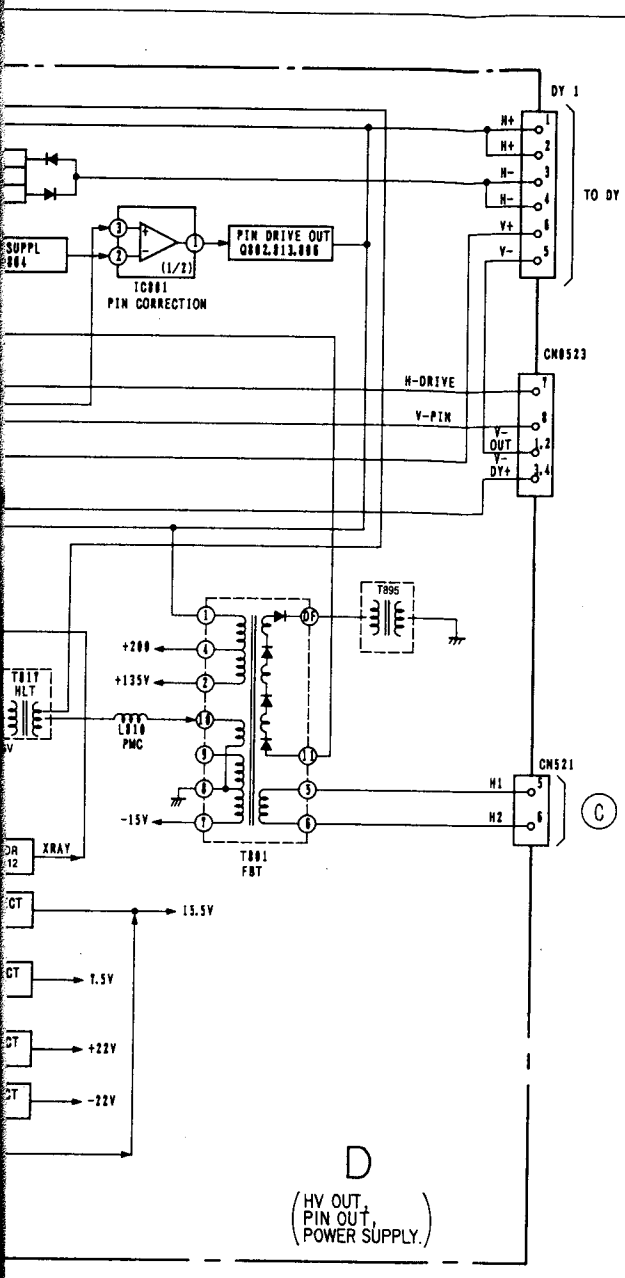
In case of no acknowledge bit, LED A and LED B starts blinking as shown.

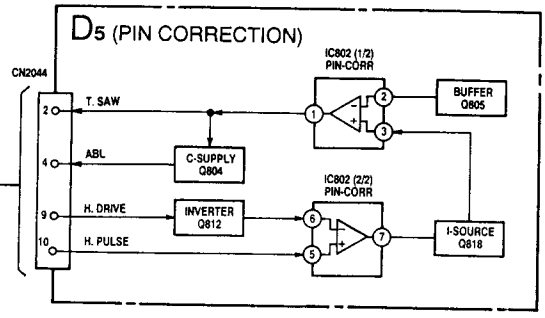


SECTION 5
DIAGRAMS

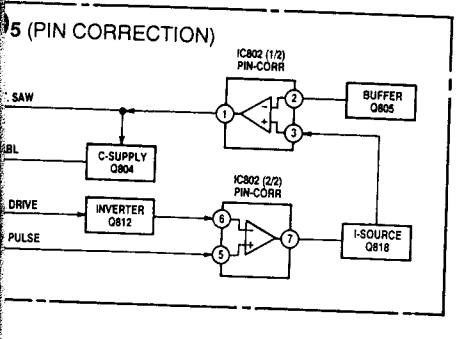
5-1. BLOCK DIAGRAM (1)

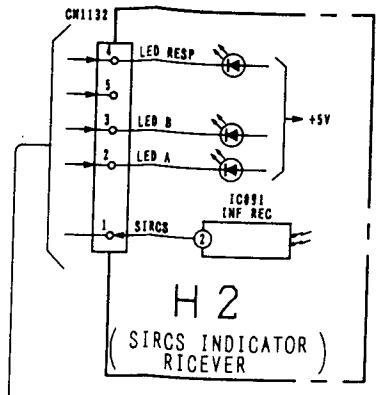


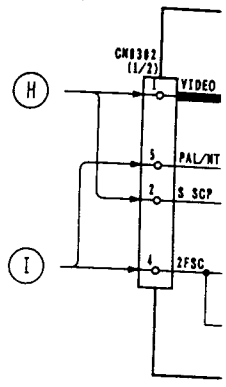

DY 1
H+
H+
H-
H-
V+
V-
TO DY
PIN DRIVE OUT
Q802,813,806
(1/2)
IC801
PIN CORRECTION
CN0523
H-DRIVE
V-PIN
V-OUT
V-DY+
T895
+200
+135V
T817
HLT
L810
PMC
-15V
XRAY
T801
FBT
CN521
H1
H2
C
15.5V
7.5V
+22V
-22V
D
(HV OUT, PIN OUT, POWER SUPPLY.)
CN0925

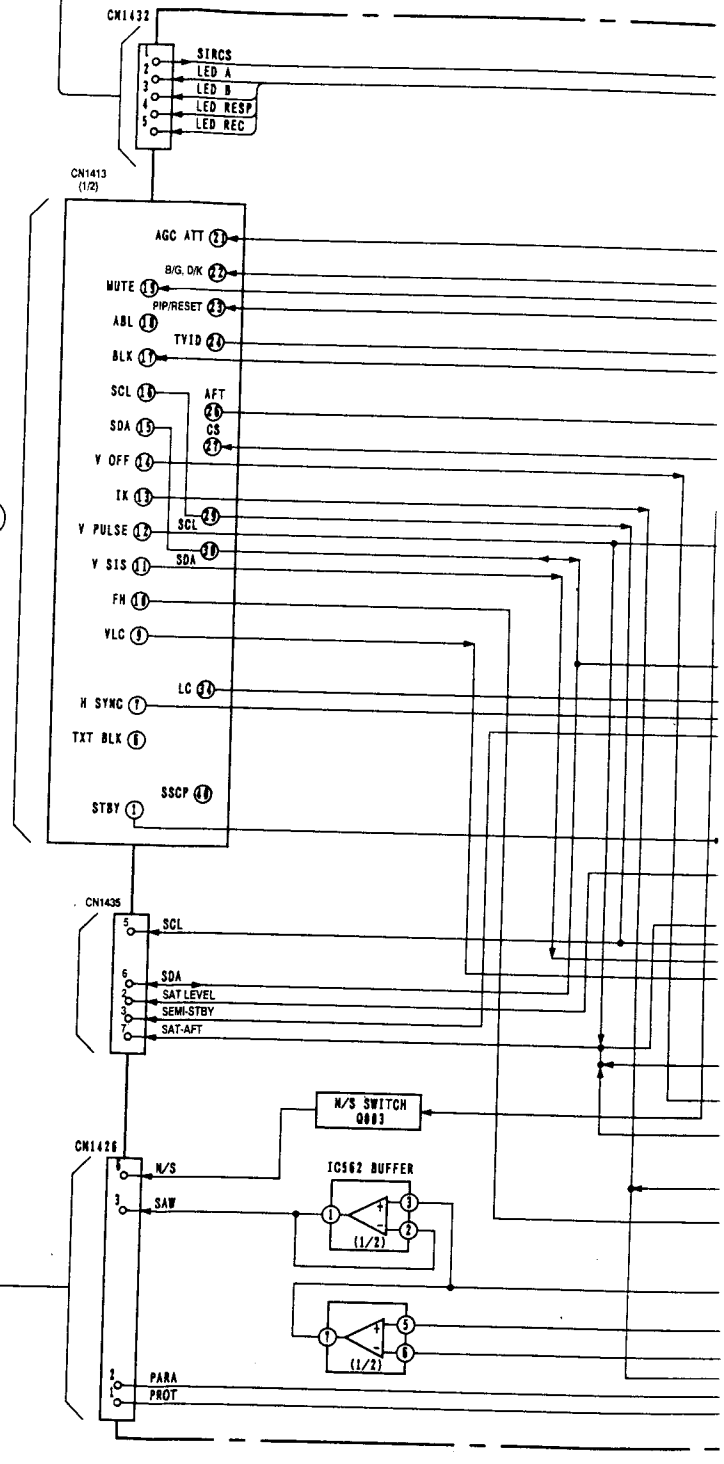

D5 (PIN CORRECTION)
CN2044
T. SAW
ABL
H. DRIVE
H. PULSE
C-SUPPLY Q804
INVERTER Q812
IC802 (1/2) PIN-CORR
IC802 (2/2) PIN-CORR
BUFFER Q805
I-SOURCE Q818

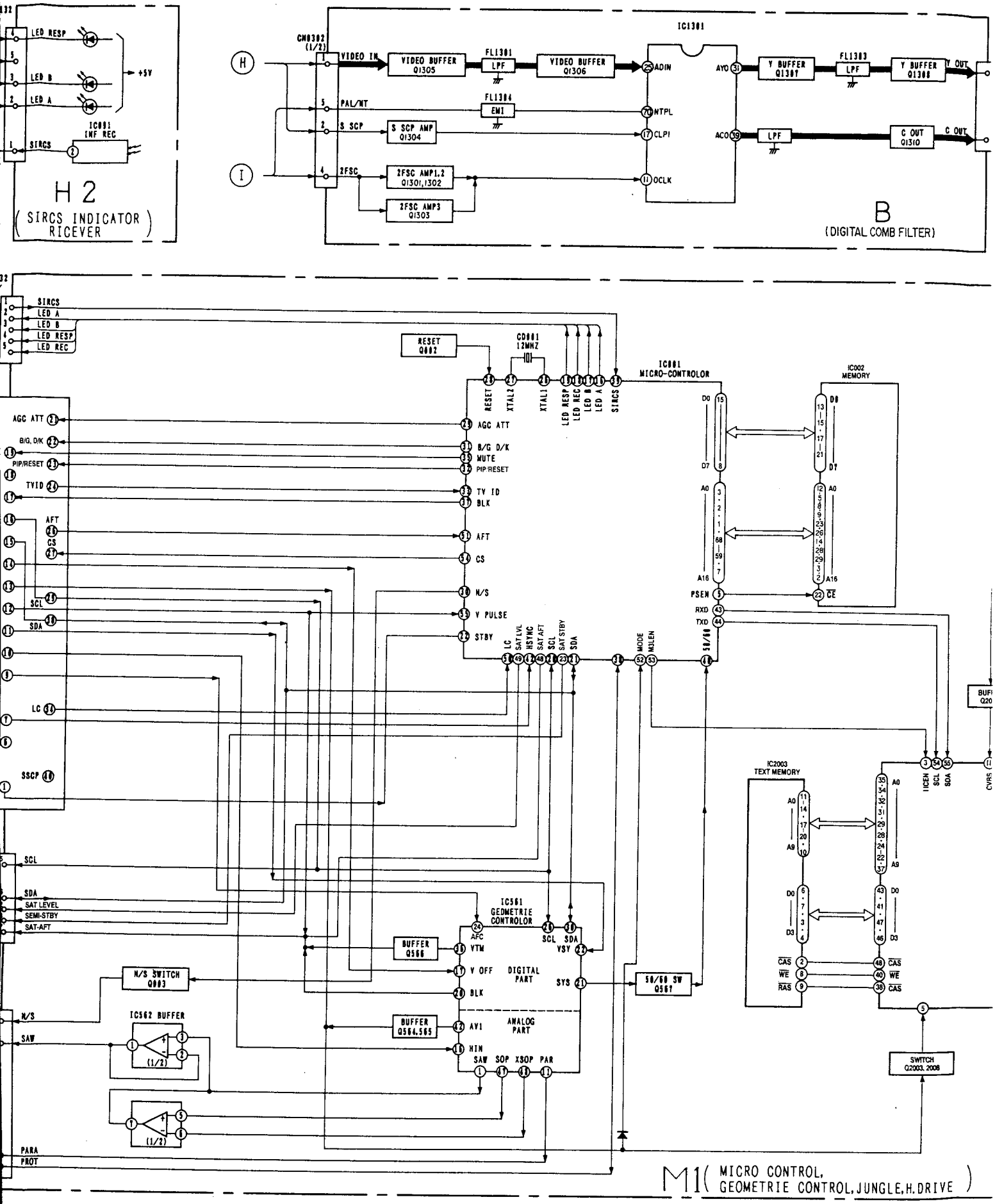
5 (PIN CORRECTION)

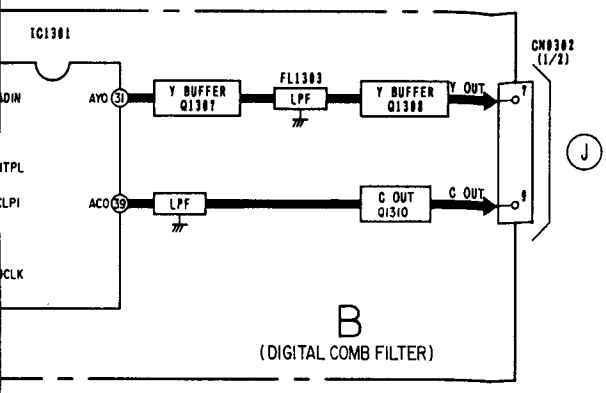




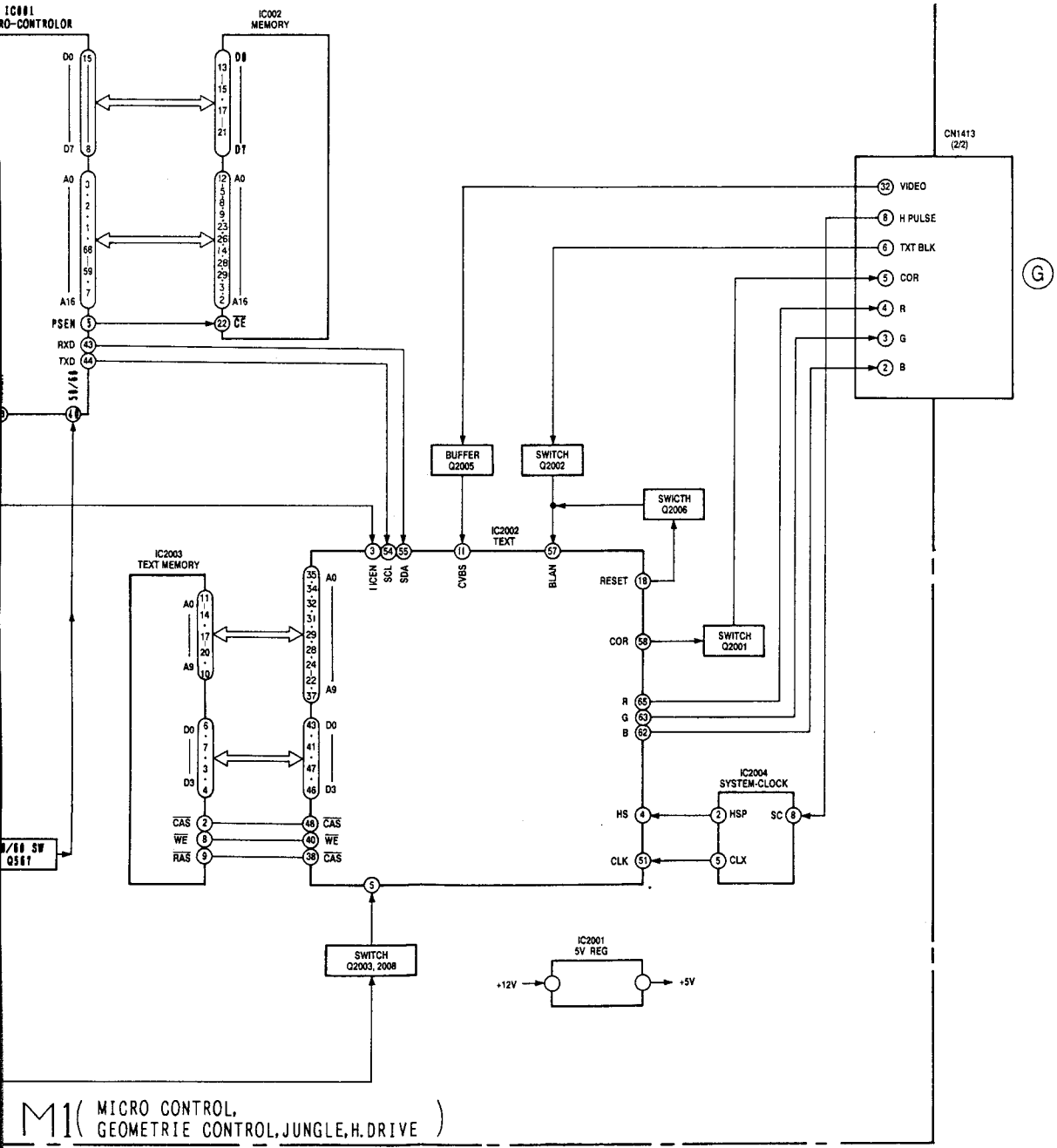





LED RESP
LED B
LED A
+5V
IC001
INF REC
SIRCS
H 2
(SIRCS INDICATOR RICEVER)
CN0302 (1/2)
VIDEO IN
VIDEO BUFFER Q1305
FL1301 LPF
VIDEO BUFFER Q1306
IC1301
ADIN
AYO
Y BUFFER Q1307
FL1303 LPF
Y BUFFER Q1308
Y OUT
PAL/NT
FL1304 EMI
NTPL
S SCP
S SCP AMP Q1304
CLPI
ACO
LPF
C OUT Q1310
C OUT
2FSC
2FSC AMP1,2 Q1301,1302
OCLK
2FSC AMP3 Q1303
B
(DIGITAL COMB FILTER)
SIRCS
LED A
LED B
LED RESP
LED REC
RESET Q002
CD001 12MHZ
IC001 MICRO-CONTROLOR
IC002 MEMORY
RESET
XTAL2
XTAL1
AGC ATT
B/G, D/K
PIP/RESET
TV ID
BLK
AFT
CS
N/S
V PULSE
STBY
SCL
SDA
LC
SSCP
D0
D7
A0
A16
PSEN
RXD
TXD
MODE
M3LEN
50/60
IC2003 TEXT MEMORY
A9
CAS
WE
RAS
SAT LEVEL
SEMI-STBY
SAT-AFT
IC561 GEOMETRIE CONTROLOR
AFC
VTM
V OFF
BLK
AVI
HIN
VSY
SYS
DIGITAL PART
ANALOG PART
SAW
SOP
XSOP
PAR
BUFFER Q566
BUFFER Q564,565
50/60 SW Q567
N/S SWITCH Q003
IC562 BUFFER
(1/2)
N/S
SAW
PARA
PROT
SWITCH Q2003, 2006
M1(MICRO CONTROL, GEOMETRIE CONTROL, JUNGLE, H.DRIVE)



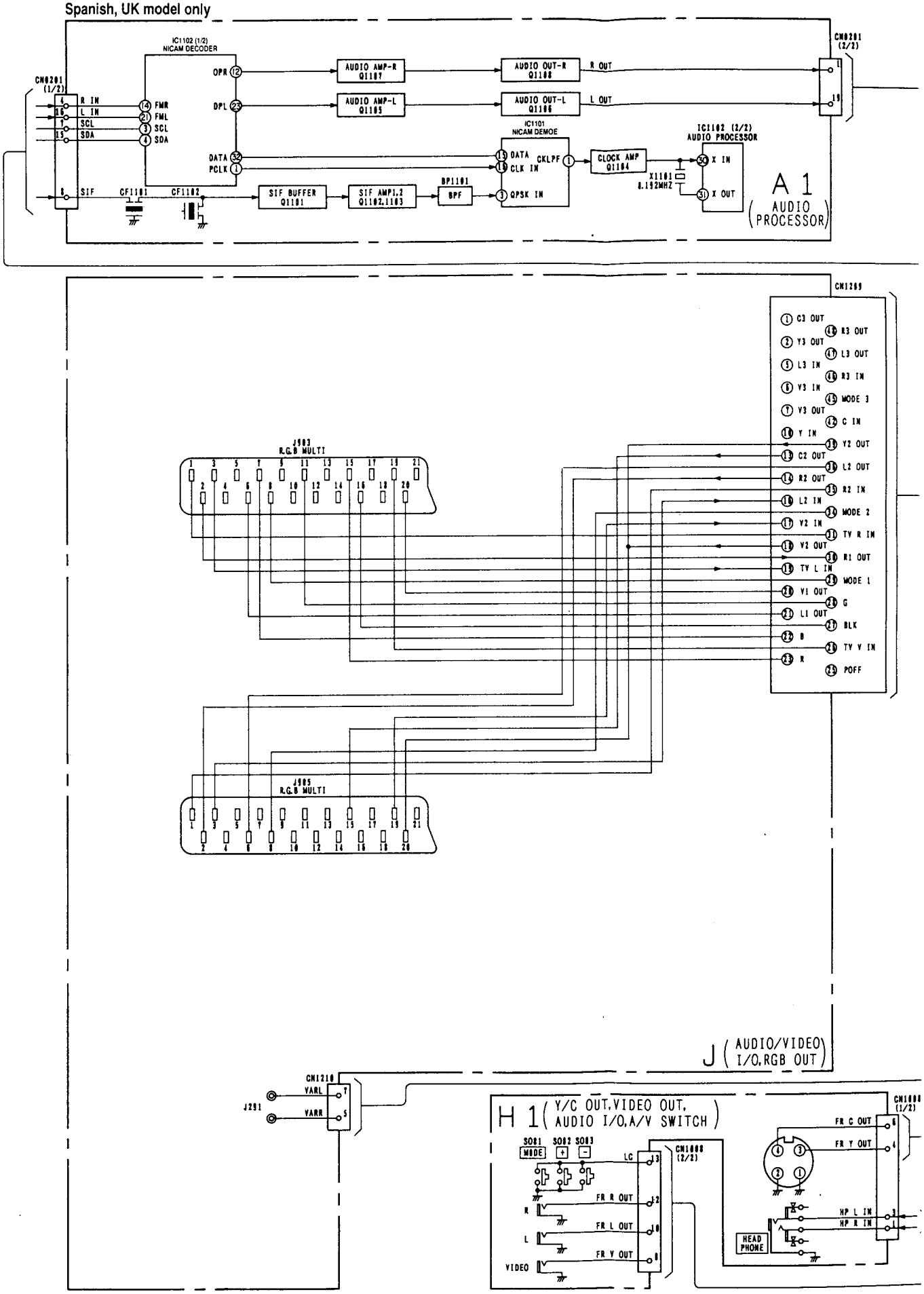
B
(DIGITAL COMB FILTER)

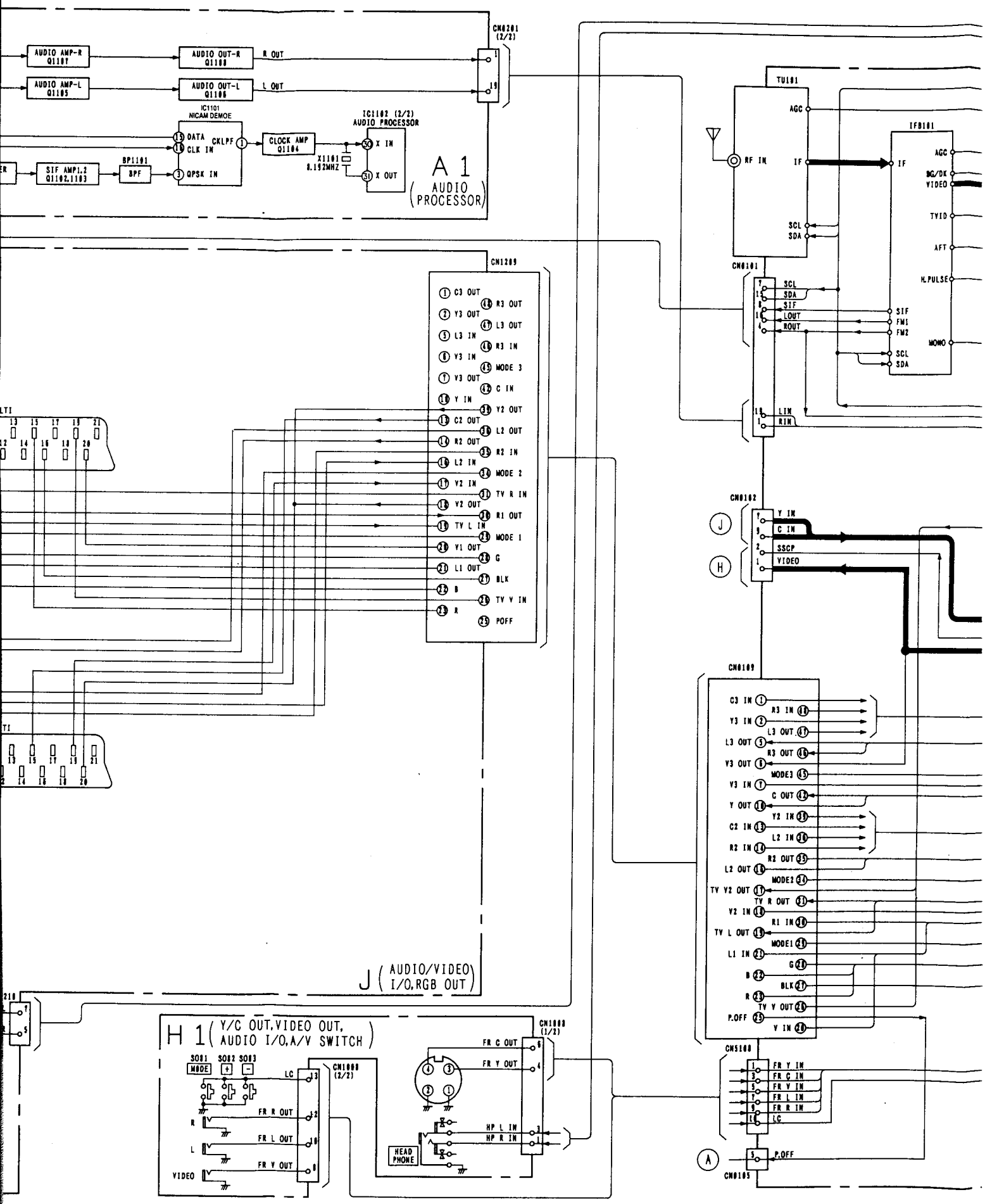


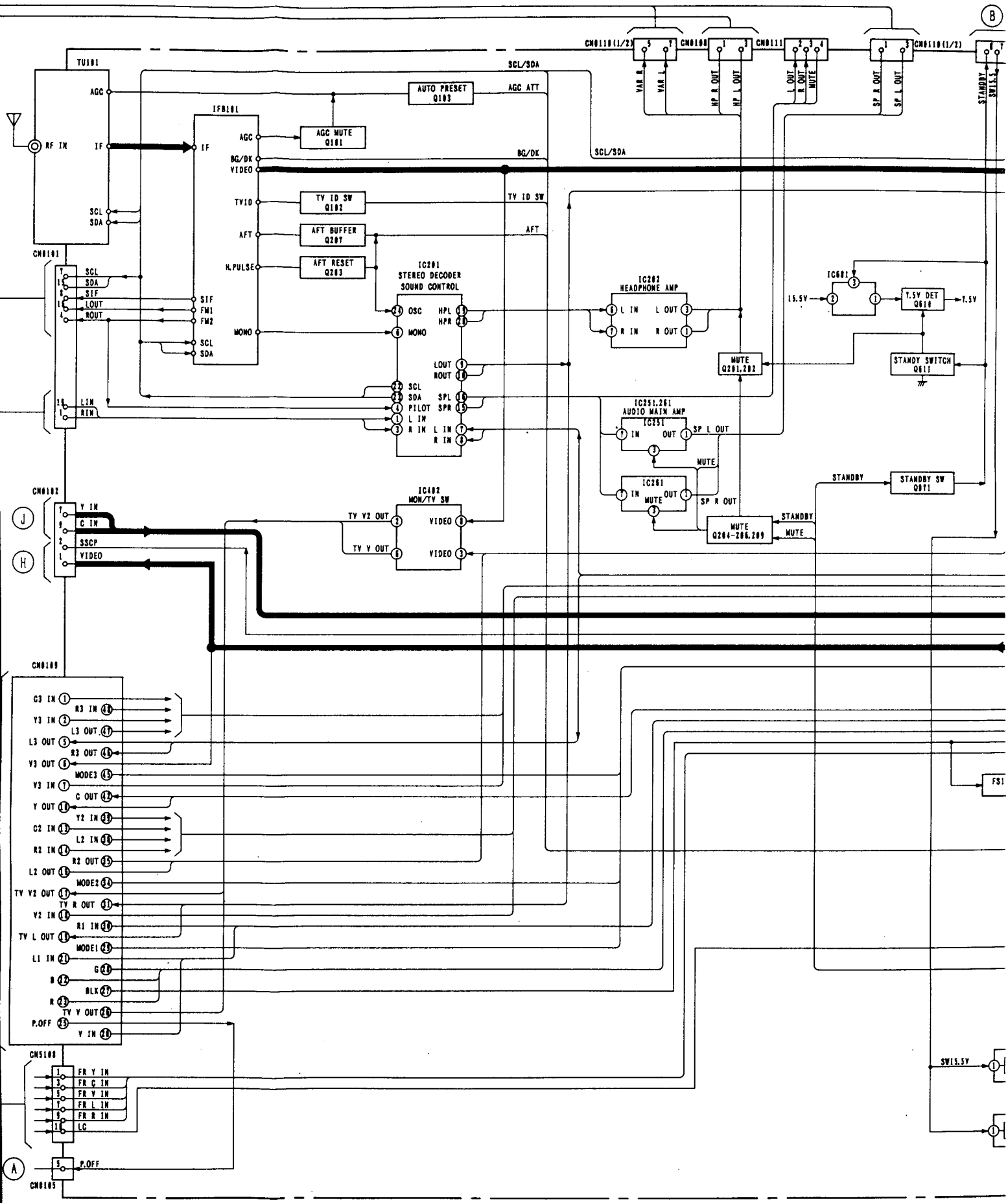
M1(MICRO CONTROL,
GEOMETRIE CONTROL, JUNGLE, H.DRIVE)

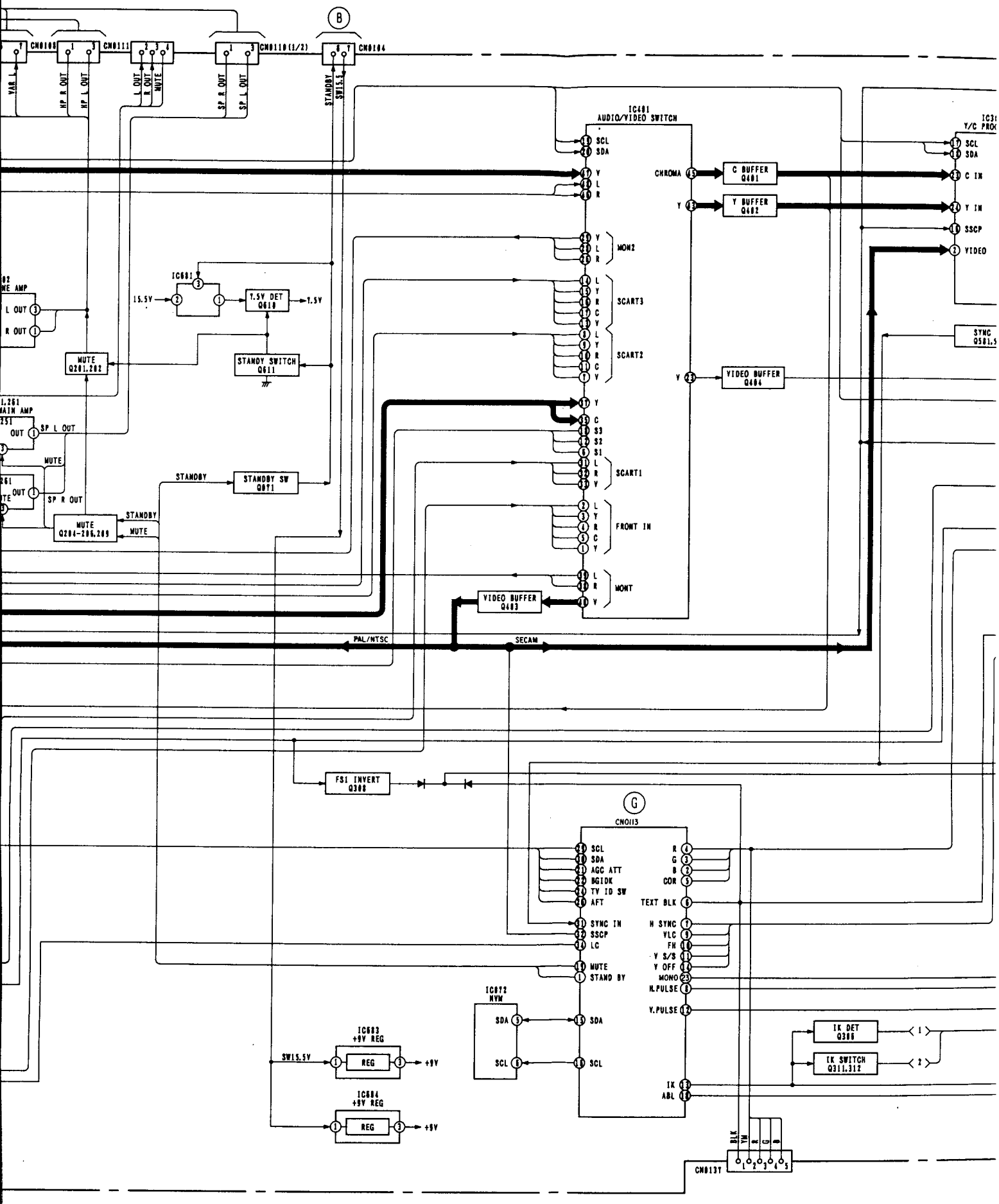
BLOCK DIAGRAM (2)

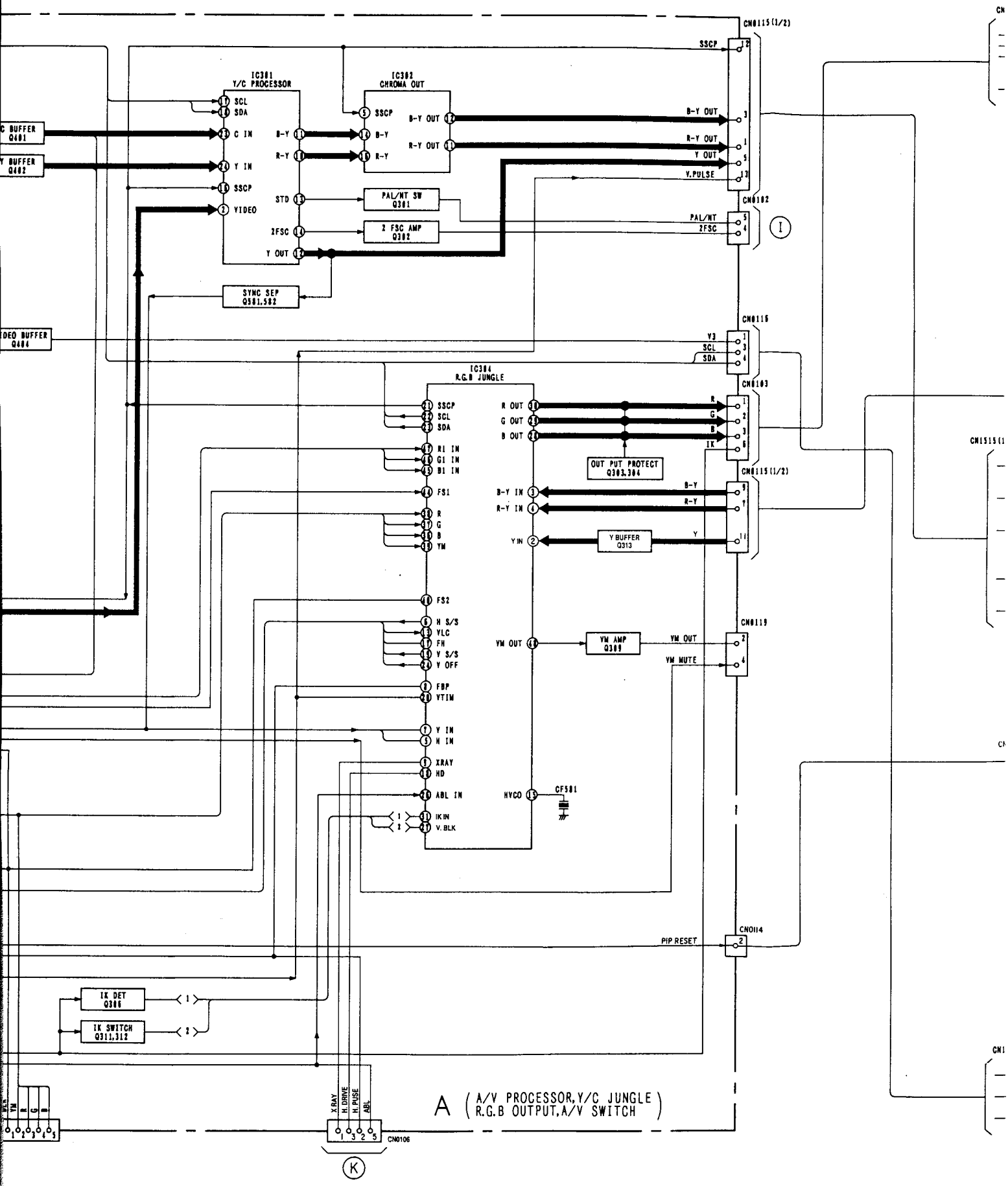
Spanish, UK model only

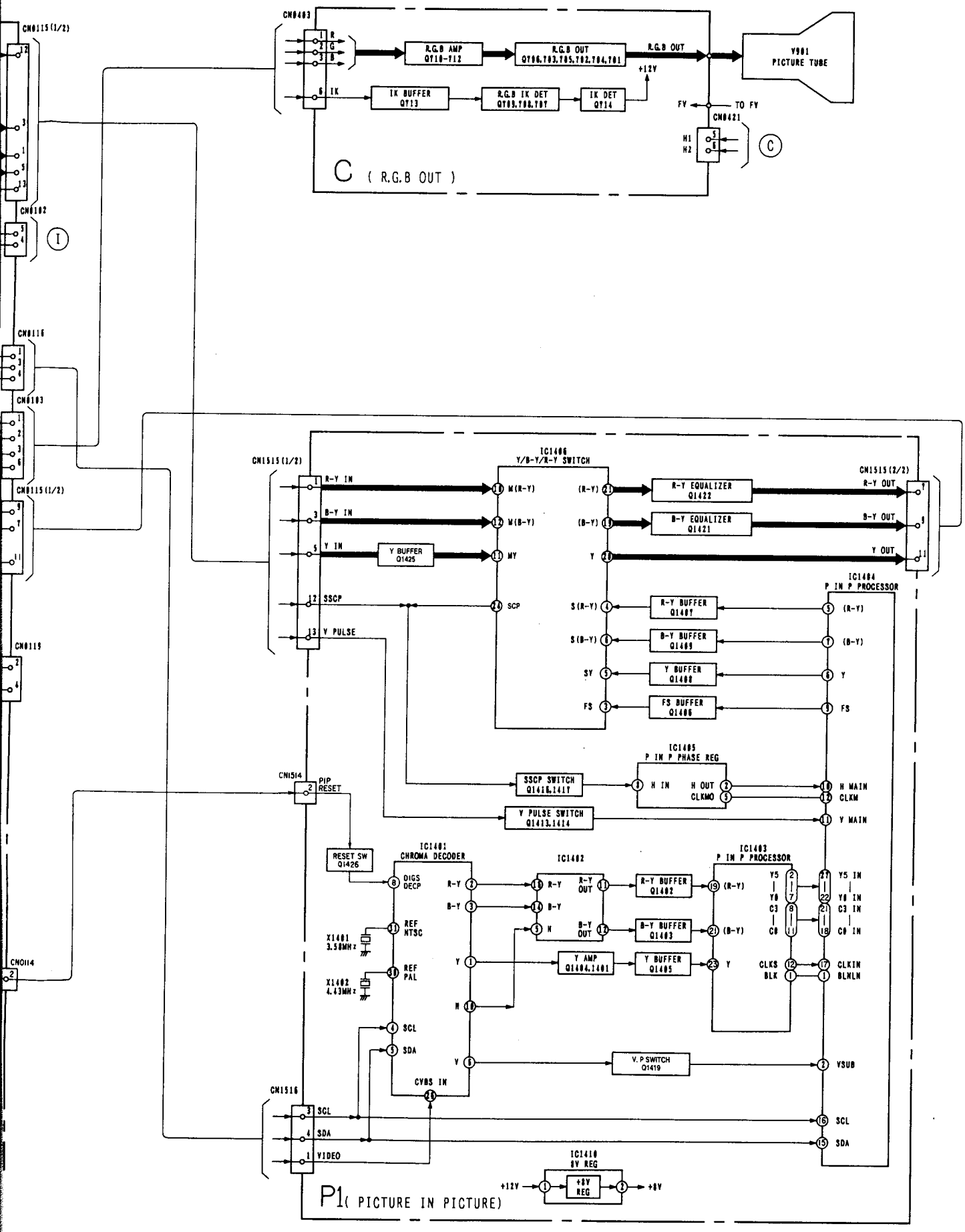



AUDIO AMP-R Q1107
AUDIO OUT-R Q1108
R OUT
AUDIO AMP-L Q1105
AUDIO OUT-L Q1106
L OUT
IC1101 NICAM DEMOE
DATA
CLK IN
CKLPF
QPSK IN
SIF AMP1,2 Q1102,1103
BPF1101
BPF
CLOCK AMP Q1104
X1101 8.192MHZ
IC1102 (2/2) AUDIO PROCESSOR
X IN
X OUT
CN0201 (2/2)
A 1 (AUDIO PROCESSOR)
TU101
AGC
RF IN
IF
SCL
SDA
IFB101
BG/DK
VIDEO
TYID
AFT
H.PULSE
MONO
SIF
FM1
FM2
LOUT
ROUT
LIN
RIN
CN0101
CN1209
C3 OUT
Y3 OUT
L3 IN
V3 IN
V3 OUT
Y IN
C2 OUT
R2 OUT
L2 IN
V2 IN
V2 OUT
TV L IN
V1 OUT
L1 OUT
B
R
R3 OUT
L3 OUT
R3 IN
MODE 3
C IN
Y2 OUT
L2 OUT
R2 IN
MODE 2
TV R IN
R1 OUT
MODE 1
G
BLK
TV V IN
POFF
CN0102
Y IN
C IN
SSCP
VIDEO
J
H
CN0109
C3 IN
Y3 IN
L3 OUT
V3 OUT
V3 IN
Y OUT
C2 IN
R2 IN
L2 OUT
TV V2 OUT
V2 IN
TV L OUT
L1 IN
B
R
P.OFF
R3 IN
L3 OUT
R3 OUT
MODE3
C OUT
Y2 IN
L2 IN
R2 OUT
MODE2
TV R OUT
R1 IN
MODE1
G
BLK
TV V OUT
V IN
J (AUDIO/VIDEO I/O,RGB OUT)
H 1 (Y/C OUT,VIDEO OUT, AUDIO I/O,A/V SWITCH)
SO81
SO82
SO83
MODE
LC
FR R OUT
FR L OUT
FR V OUT
R
L
VIDEO
CN1088 (2/2)
CN1088 (1/2)
FR C OUT
FR Y OUT
HP L IN
HP R IN
HEAD PHONE
CN5108
FR Y IN
FR C IN
FR V IN
FR L IN
FR R IN
LC
P.OFF
A
CN0105

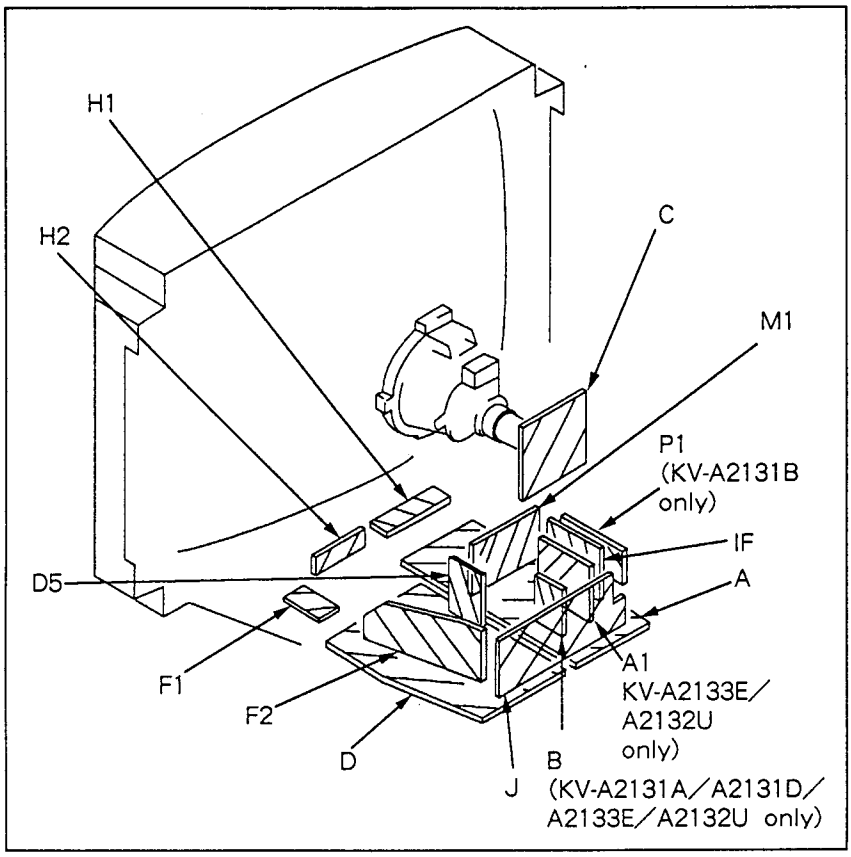

TU101
AGC
IF
RF IN
SCL
SDA
IFB101
AGC
IF
BG/DK
VIDEO
TVID
AFT
H.PULSE
MONO
SIF
FM1
FM2
SCL
SDA
AUTO PRESET Q103
AGC MUTE Q101
TV ID SW Q102
AFT BUFFER Q207
AFT RESET Q203
SCL/SDA
AGC ATT
TV ID SW
AFT
BG/DK
CN0110(1/2)
CN0108
CN0111
CN0110(1/2)
VAR R
VAR L
HP R OUT
HP L OUT
L OUT
R OUT
MUTE
SP R OUT
SP L OUT
STANDBY
SW15.5
CN0101
SCL
SDA
SIF
LOUT
ROUT
LIN
RIN
IC201
STEREO DECODER
SOUND CONTROL
OSC
MONO
HPL
HPR
LOUT
ROUT
SCL
SDA
PILOT
SPL
SPR
L IN
R IN
IC202
HEADPHONE AMP
L IN
R IN
L OUT
R OUT
IC601
15.5V
7.5V DET Q610
7.5V
MUTE Q201,202
STANDY SWITCH Q611
IC251,261
AUDIO MAIN AMP
IC251
IN
OUT
SP L OUT
MUTE
IC261
IN
MUTE
OUT
SP R OUT
STANDBY
STANDBY SW Q971
MUTE Q204-206,209
STANDBY
MUTE
CN0102
Y IN
C IN
SSCP
VIDEO
IC402
MON/TV SW
TV V2 OUT
TV Y OUT
VIDEO
VIDEO
CN0103
C3 IN
Y3 IN
L3 OUT
V3 OUT
Y3 IN
Y OUT
C2 IN
R2 IN
L2 OUT
TV V2 OUT
V2 IN
TV L OUT
L1 IN
B
R
P.OFF
R3 IN
L3 OUT
R3 OUT
MODE3
C OUT
Y2 IN
L2 IN
R2 OUT
MODE2
TV R OUT
R1 IN
MODE1
G
BLK
TV Y OUT
V IN
CN5108
FR Y IN
FR C IN
FR V IN
FR L IN
FR R IN
LC
CN0105
P.OFF
FS1
SW15.5V


B
CN0108
CN0111
CN0110(1/2)
CN0104
VAR L
HP R OUT
HP L OUT
L OUT
R OUT
MUTE
SP R OUT
SP L OUT
STANDBY
SW15.5
IC481
AUDIO/VIDEO SWITCH
SCL
SDA
Y
L
R
CHROMA
C BUFFER Q401
Y BUFFER Q402
MON2
SCART3
SCART2
SCART1
FRONT IN
MONT
VIDEO BUFFER Q404
VIDEO BUFFER Q403
IC681
15.5V
7.5V DET Q618
7.5V
STANDY SWITCH Q611
MUTE Q281,282
MUTE Q284-286,289
STANDBY SW Q871
STANDBY
MUTE
SP L OUT
SP R OUT
PAL/NTSC
SECAM
FS1 INVERT Q308
CN0113
SYNC IN
SSCP
LC
AGC ATT
BGIDK
TV ID SW
AFT
MUTE
STAND BY
R
G
B
COR
TEXT BLK
H SYNC
VLC
FH
V S/S
V OFF
MONO
H.PULSE
V.PULSE
IC872
NVM
IC683
+9V REG
IC684
+9V REG
REG
+9V
IK DET Q306
IK SWITCH Q311,312
IK
ABL
BLK
CN0137


CN0115(1/2)
SSCP
IC301
Y/C PROCESSOR
IC302
CHROMA OUT
SCL
SDA
C IN
Y IN
SSCP
YVIDEO
B-Y
R-Y
STD
2FSC
Y OUT
B-Y OUT
R-Y OUT
PAL/NT SW
Q301
2 FSC AMP
Q302
SYNC SEP
Q301,302
V.PULSE
CN0102
PAL/NT
2FSC
I
CN0116
Y3
SCL
SDA
IC304
R.G.B JUNGLE
CN0103
R OUT
G OUT
B OUT
R
G
B
IK
OUT PUT PROTECT
Q303,304
CN0115(1/2)
B-Y IN
R-Y IN
Y IN
Y BUFFER
Q313
FS1
FS2
R
G
B
YM
H S/S
YLC
FH
Y S/S
Y OFF
FBP
VTIM
Y IN
H IN
XRAY
HD
ABL IN
IK IN
V. BLK
HVCO
CF501
CN0119
YM OUT
YM AMP
Q309
YM OUT
YM MUTE
CN0114
PIP RESET
IK DET
Q306
IK SWITCH
Q311,312
X.RAY
H.DRIVE
H.PUSE
ABL
CN0106
K
A (A/V PROCESSOR,Y/C JUNGLE
R.G.B OUTPUT,A/V SWITCH)


CN8403
R
G
B
IK
R.G.B AMP Q710~712
R.G.B OUT Q706,703,705,702,704,701
R.G.B OUT
+12V
V901 PICTURE TUBE
IK BUFFER Q713
R.G.B IK DET Q709,708,707
IK DET Q714
FV
TO FV
CN8421
H1
H2
C
C (R.G.B OUT)
CN8115(1/2)
CN8102
I
CN8116
CN8103
CN8115(1/2)
CN8119
CN1515(1/2)
IC1406
Y/B-Y/R-Y SWITCH
R-Y IN
B-Y IN
Y IN
Y BUFFER Q1425
SSCP
V PULSE
M(R-Y)
M(B-Y)
MY
SCP
(R-Y)
(B-Y)
Y
S(R-Y)
S(B-Y)
SY
FS
R-Y EQUALIZER Q1422
B-Y EQUALIZER Q1421
CN1515(2/2)
R-Y OUT
B-Y OUT
Y OUT
IC1404
P IN P PROCESSOR
R-Y BUFFER Q1407
B-Y BUFFER Q1409
Y BUFFER Q1408
FS BUFFER Q1406
IC1405
P IN P PHASE REG
H IN
H OUT
CLKMO
H MAIN
CLKM
Y MAIN
CN1514
PIP RESET
SSCP SWITCH Q1415,1417
Y PULSE SWITCH Q1413,1414
RESET SW Q1426
IC1401
CHROMA DECODER
IC1402
IC1403
P IN P PROCESSOR
DIGS DECP
REF NTSC
REF PAL
X1401 3.58MHz
X1402 4.43MHz
SCL
SDA
CVBS IN
R-Y
B-Y
H
Y
R-Y OUT
B-Y OUT
Y AMP Q1404,1401
R-Y BUFFER Q1402
B-Y BUFFER Q1403
Y BUFFER Q1405
Y5
Y0
C3
C0
CLKS
BLK
Y5 IN
Y0 IN
C3 IN
C0 IN
CLKIN
BLNLN
V. P SWITCH Q1419
VSUB
CN1516
SCL
SDA
VIDEO
IC1410
8V REG
+12V
+8V REG
+8V
P1
P1(PICTURE IN PICTURE)

5-2. CIRCUIT BOARDS LOCATION



Reference information

RESISTOR	RN	: METAL FILM
	RC	: SOLID
	FPRD	: NONFLAMMABLE CARBON
	FUSE	: NONFLAMMABLE FUSIBLE
	RS	: NONFLAMMABLE METAL OXIDE
	RB	: NONFLAMMABLE CEMENT
	RW	: NONFLAMMABLE WIREWOUND
	※	: ADJUSTMENT RESISTOR
COIL	LF-8L	: MICRO INDUCTOR
CAPACITOR	TA	: TANTALUM
	PS	: STYROL
	PP	: POLYPROPYLENE
	PT	: MYLAR
	MPS	: METALIZED POLYESTER
	MPP	: METALIZED POLYPROPYLENE
	ALB	: BIPOLAR
	ALT	: HIGH TEMPERATURE
	ALR	: HIGH RIPPLE

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une trame et par une marque ⚠ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note :

- All capacitors are in μF unless otherwise noted. pF : μμF 50WV or less are not indicated except for electrolytic.
- Indication of resistance, which dose not have one for rating electrical power, is as follows.

Pitch : 5mm Rating electrical power : ¼W

- Chip resistor is in 1/10W.
- All resistors are in ohms. kΩ = 1000Ω, MΩ = 1000KΩ
- : nonflammable resistor.
- : fusible resistor.
- △ : internal component.
- : panel designation or adjustment for repair.
- All variable and adjustable resistors have charactristic curve B, unless otherwise noted.
- All voltages are in V.
- Readings are taken with a 10MΩ digital multimeter.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerances.
- : B + bus.
- : B − bus.
- : signal path.(RF)
- : earth - ground
- : earth - chassis

C

M1

P1
(KV-A2131B
only)

IF
A

A1
KV-A2133E/
A2132U
only)

131A/A2131D/
E/A2132U only)

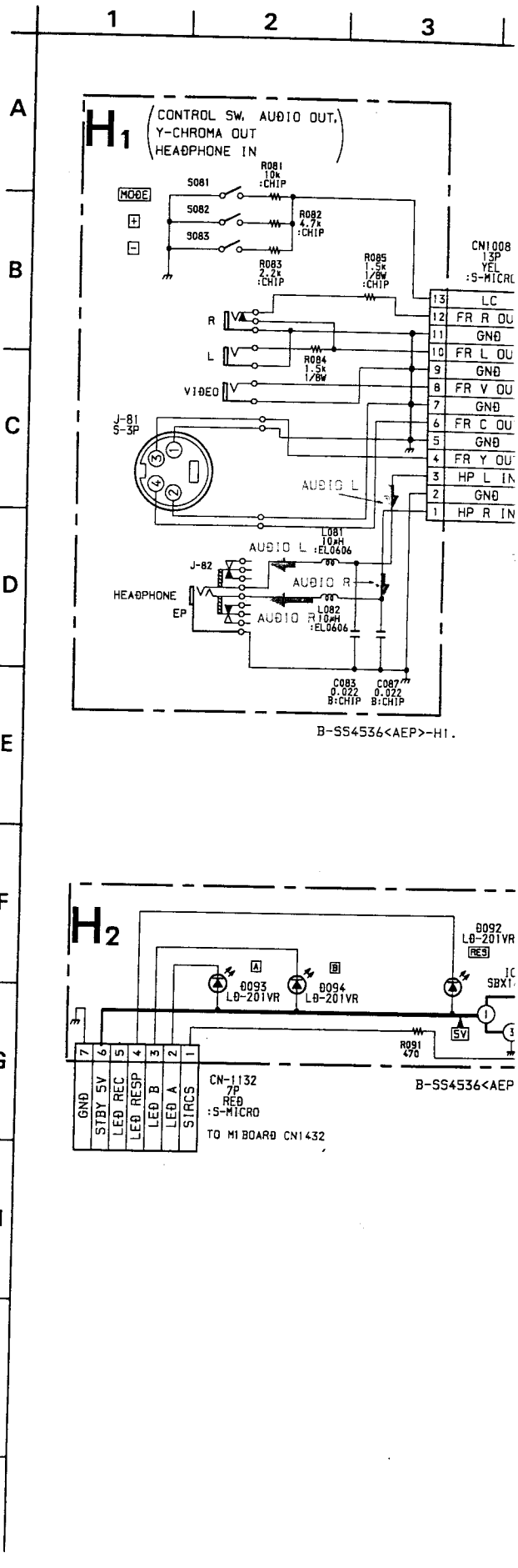
NG BOARDS

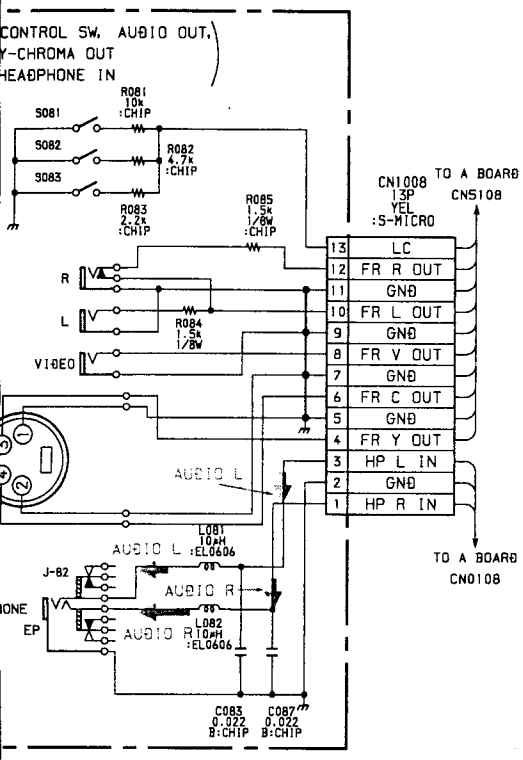
Reference information

RESISTOR	RN	: METAL FILM
	RC	: SOLID
	FPRD	: NONFLAMMABLE CARBON
	FUSE	: NONFLAMMABLE FUSIBLE
	RS	: NONFLAMMABLE METAL OXIDE
	RB	: NONFLAMMABLE CEMENT
	RW	: NONFLAMMABLE WIREWOUND
	※	: ADJUSTMENT RESISTOR
COIL	LF-8L	: MICRO INDUCTOR
CAPACITOR	TA	: TANTALUM
	PS	: STYROL
	PP	: POLYPROPYLENE
	PT	: MYLAR
	MPS	: METALIZED POLYESTER
	MPP	: METALIZED POLYPROPYLENE
	ALB	: BIPOLAR
	ALT	: HIGH TEMPERATURE
	ALR	: HIGH RIPPLE

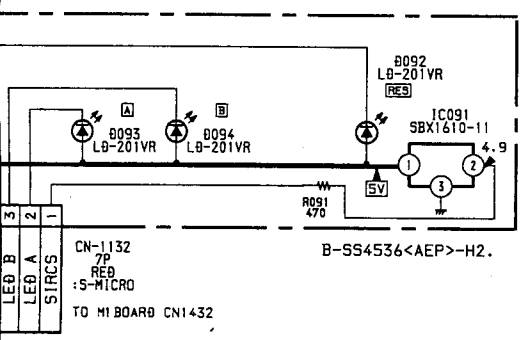
Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une trame et par une marque ⚠ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

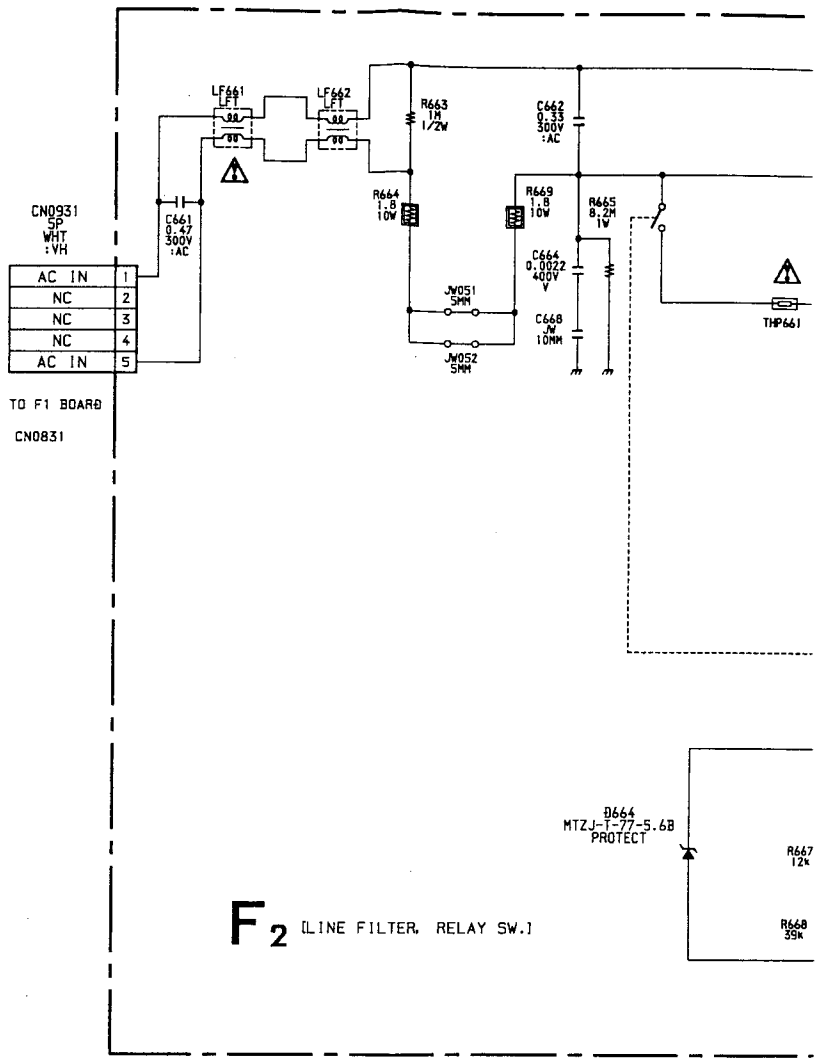


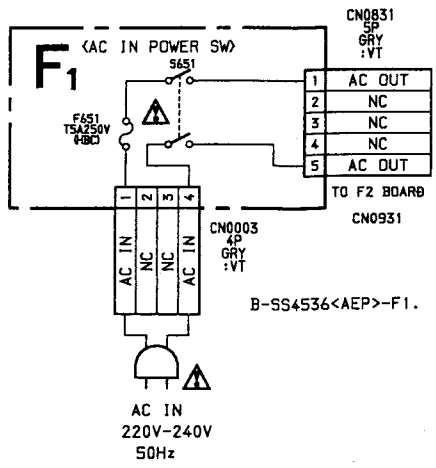


B-SS4536<AEP>-H1.

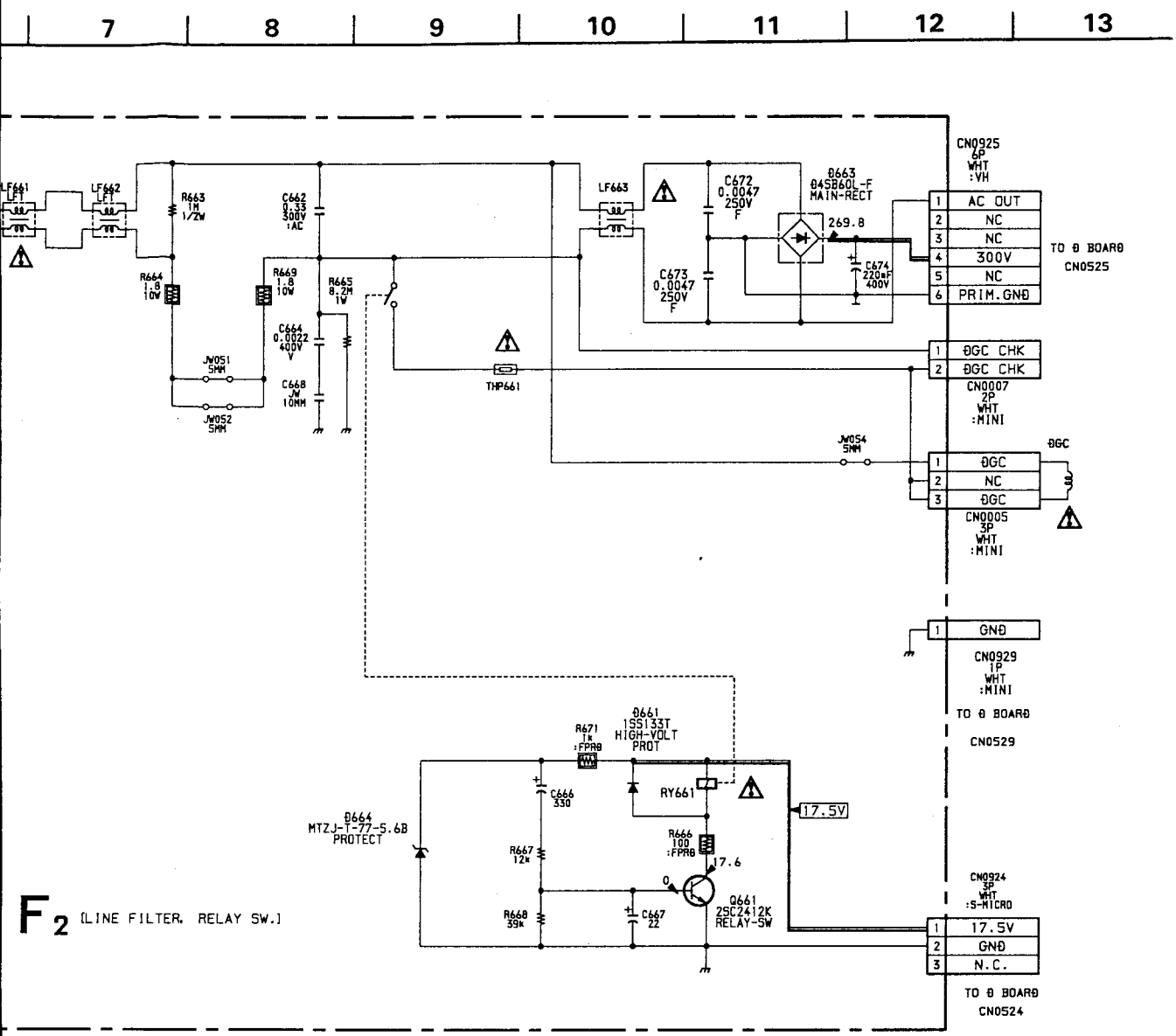


B-SS4536<AEP>-H2.

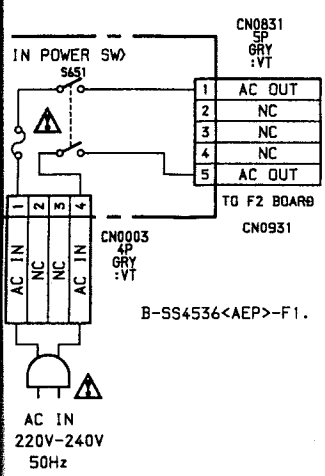




B-SS4536<AEP>-F1.



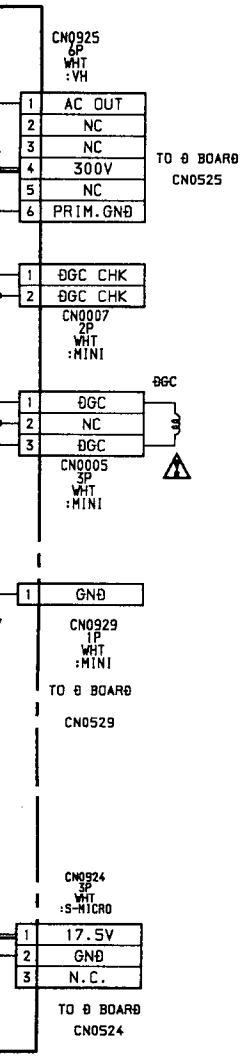
B-SS4536<AEP>-F2.



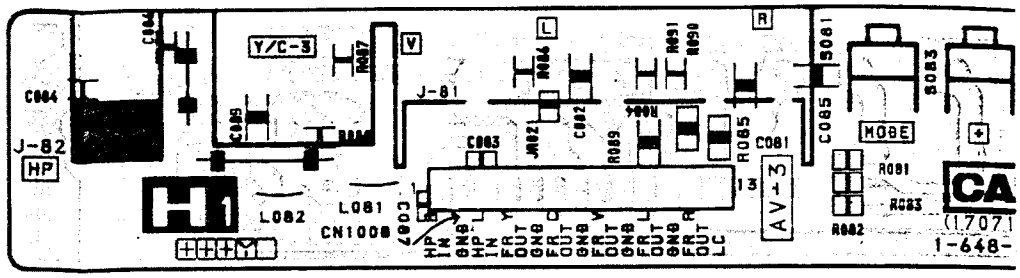
B-SS4536<AEP>-F1.

12 | 13

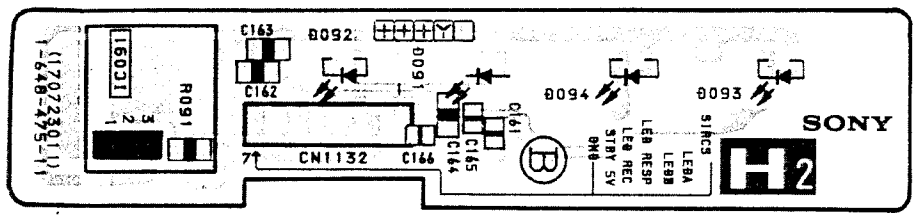
H1 [CONTROL SW, AUDIO OUT
Y – CHROMA OUT, HEADPHONE]
H2 [SIRCS RECEIVE
INDICATOR]
F2 [LIN
RE



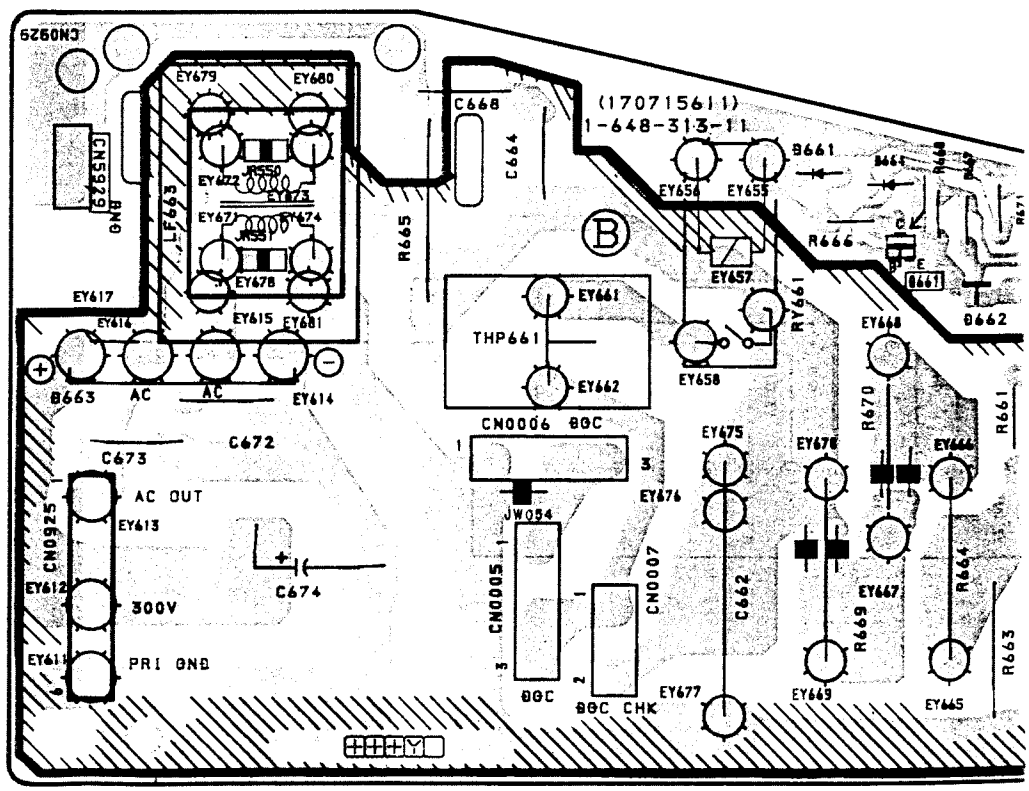
– H1 BOARD –



– H2 BOARD –

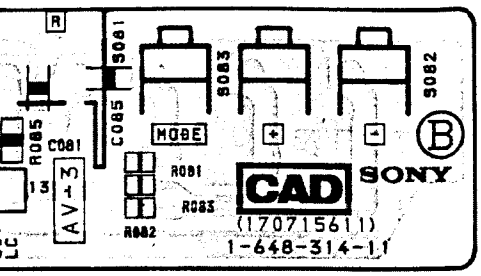


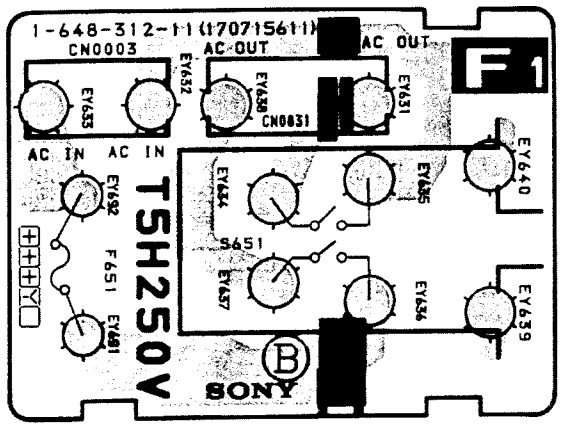
– F2 BOARD –

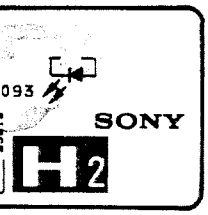


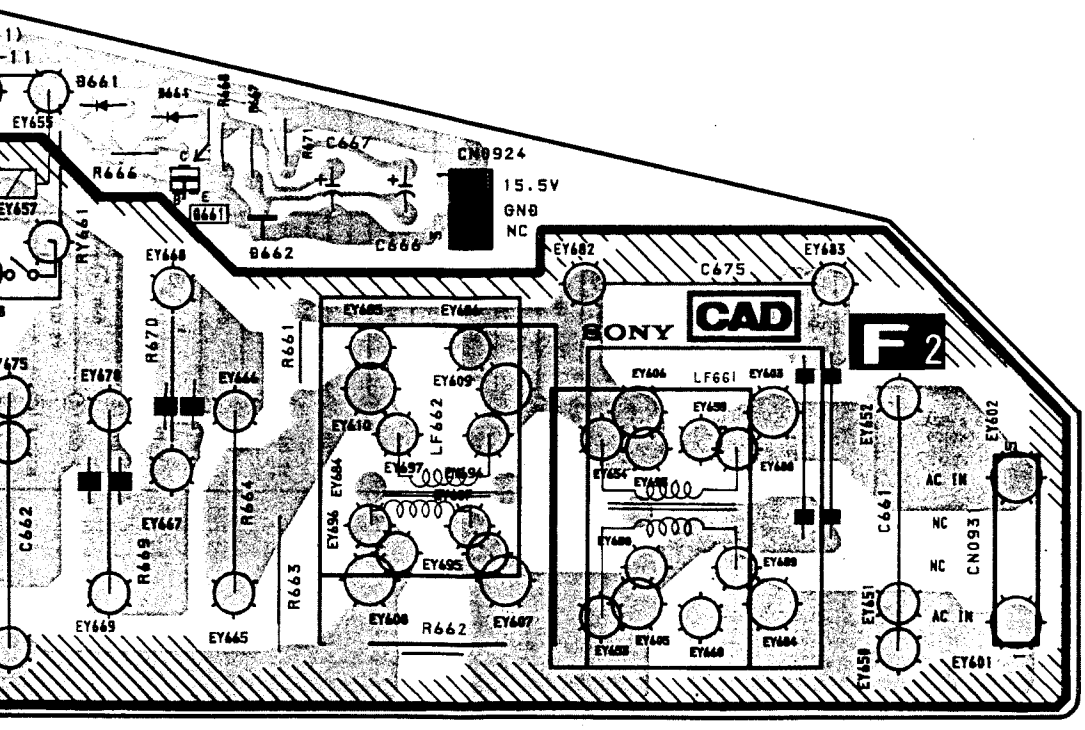
CS RECEIVE] · F2 [LINE FILTER, RELAY SW] F1 [AC IN POWER SW]

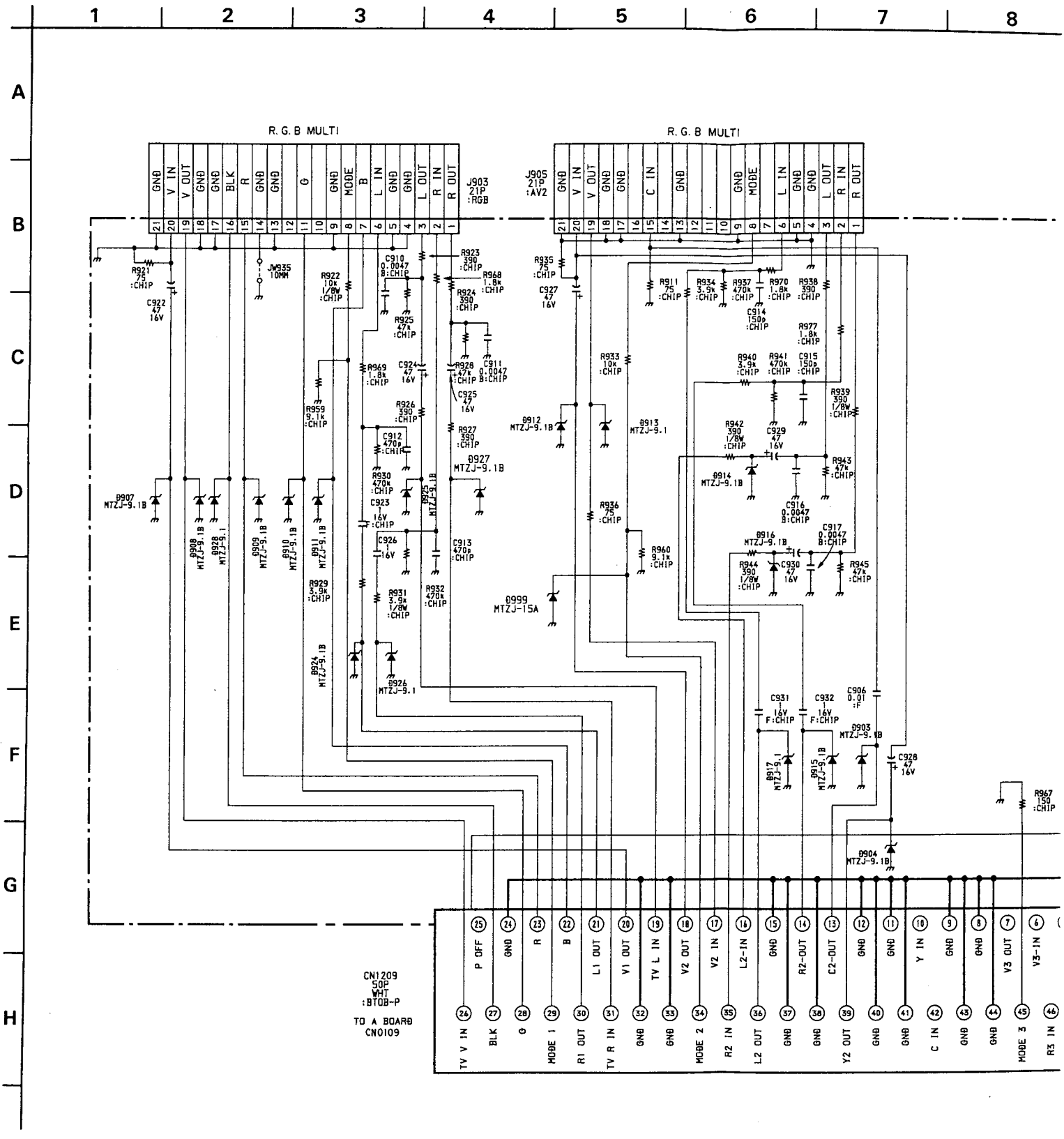
– F1 BOARD –

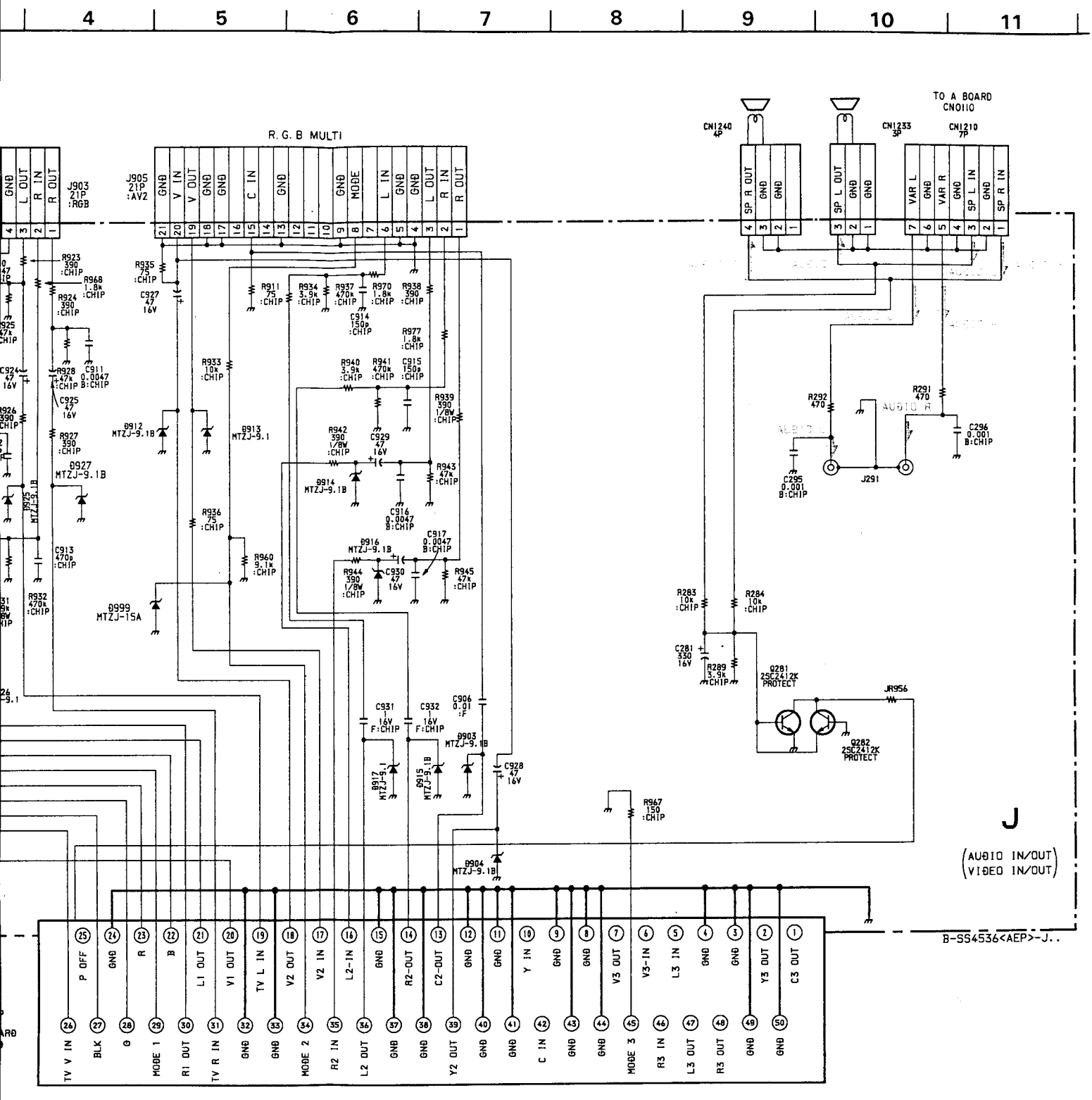









1
2
3
4
5
6
7
8
A
B
C
D
E
F
G
H
R. G. B MULTI
J903
21P
:RGB
GND
V IN
V OUT
GND
GND
BLK
R
GND
GND
G
GND
MODE
B
L IN
GND
GND
L OUT
R IN
R OUT
R. G. B MULTI
J905
21P
:AV2
GND
V IN
V OUT
GND
GND
C IN
GND
GND
MODE
L IN
GND
GND
L OUT
R IN
R OUT
R921 75 :CHIP
C922 47 16V
JW935 10MM
R922 10k 1/8W :CHIP
C910 0.0047 B:CHIP
R923 390 :CHIP
R968 1.8k :CHIP
R924 390 :CHIP
R925 47k :CHIP
R969 1.8k :CHIP
C924 47 16V
R928 1.47k :CHIP
C911 0.0047 B:CHIP
C925 47 16V
R959 9.1k :CHIP
R926 390 :CHIP
R927 390 :CHIP
C912 470p :CHIP
R930 470k :CHIP
C923 16V :CHIP
C926 1 16V
C913 470p :CHIP
R929 3.9k :CHIP
R931 3.9k 1/8W :CHIP
R932 470k :CHIP
D907 MTZJ-9.1B
D908 MTZJ-9.1B
D928 MTZJ-9.1
D909 MTZJ-9.1B
D910 MTZJ-9.1B
D911 MTZJ-9.1B
D924 MTZJ-9.1B
D925 MTZJ-9.1B
D926 MTZJ-9.1
D927 MTZJ-9.1B
R935 75 :CHIP
C927 47 16V
R911 75 :CHIP
R934 3.9k :CHIP
R937 470k :CHIP
R970 1.8k :CHIP
R938 390 :CHIP
C914 150p :CHIP
R977 1.8k :CHIP
R933 10k :CHIP
R940 3.9k :CHIP
R941 470k :CHIP
C915 150p :CHIP
R939 390 1/8W :CHIP
D912 MTZJ-9.1B
D913 MTZJ-9.1
R942 390 1/8W :CHIP
C929 47 16V
R943 47k :CHIP
D914 MTZJ-9.1B
C916 0.0047 B:CHIP
C917 0.0047 B:CHIP
D916 MTZJ-9.1B
R936 :CHIP
R960 9.1k :CHIP
R944 390 1/8W :CHIP
C930 47 16V
R945 47k :CHIP
D999 MTZJ-15A
C931 16V F:CHIP
C932 16V F:CHIP
C906 0.01 :F
D903 MTZJ-9.1B
D917 MTZJ-9.1
D915 MTZJ-9.1B
C928 47 16V
R967 150 :CHIP
D904 MTZJ-9.1B
CN1209
50P
WHT
:BTOB-P
TO A BOARD
CN0109
25 P OFF
24 GND
23 R
22 B
21 L1 OUT
20 V1 OUT
19 TV L IN
18 V2 OUT
17 V2 IN
16 L2-IN
15 GND
14 R2-OUT
13 C2-OUT
12 GND
11 GND
10 Y IN
9 GND
8 GND
7 V3 OUT
6 V3-IN
26 TV V IN
27 BLK
28 G
29 MODE 1
30 R1 OUT
31 TV R IN
32 GND
33 GND
34 MODE 2
35 R2 IN
36 L2 OUT
37 GND
38 GND
39 Y2 OUT
40 GND
41 GND
42 C IN
43 GND
44 GND
45 MODE 3
46 R3 IN

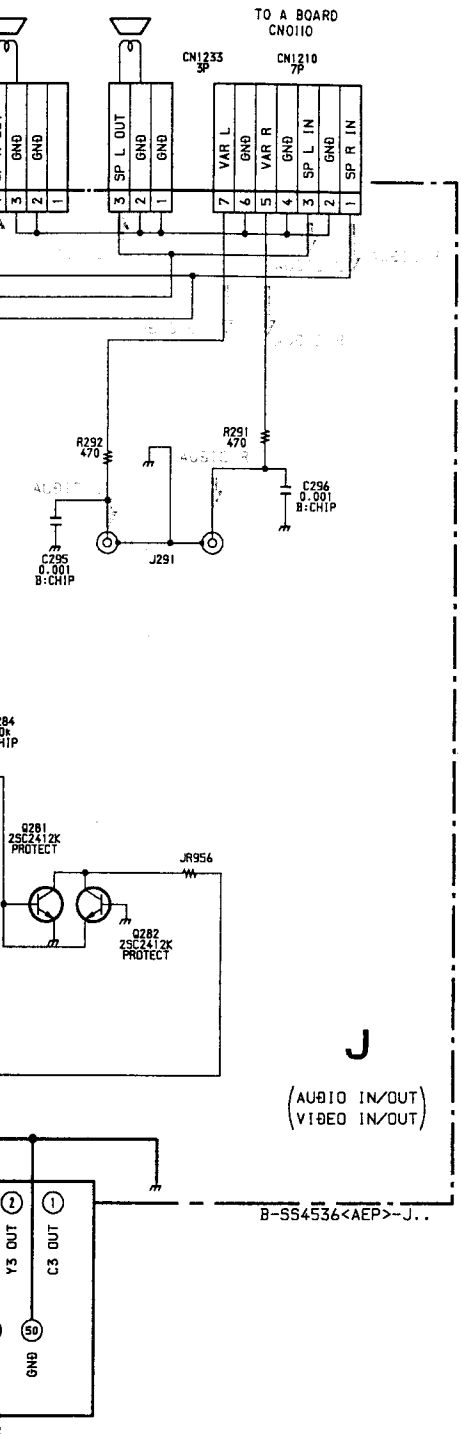


Note :

- : Pattern from the side which ena
- : Pattern of the rear side.

J [AUDIO IN/OUT / VIDEO IN/OUT] **A** [TUNER, AUDIO, CONTROL, AUDIO AMP / AV SW, R.G.B JUNGLE, Y/C PROCES

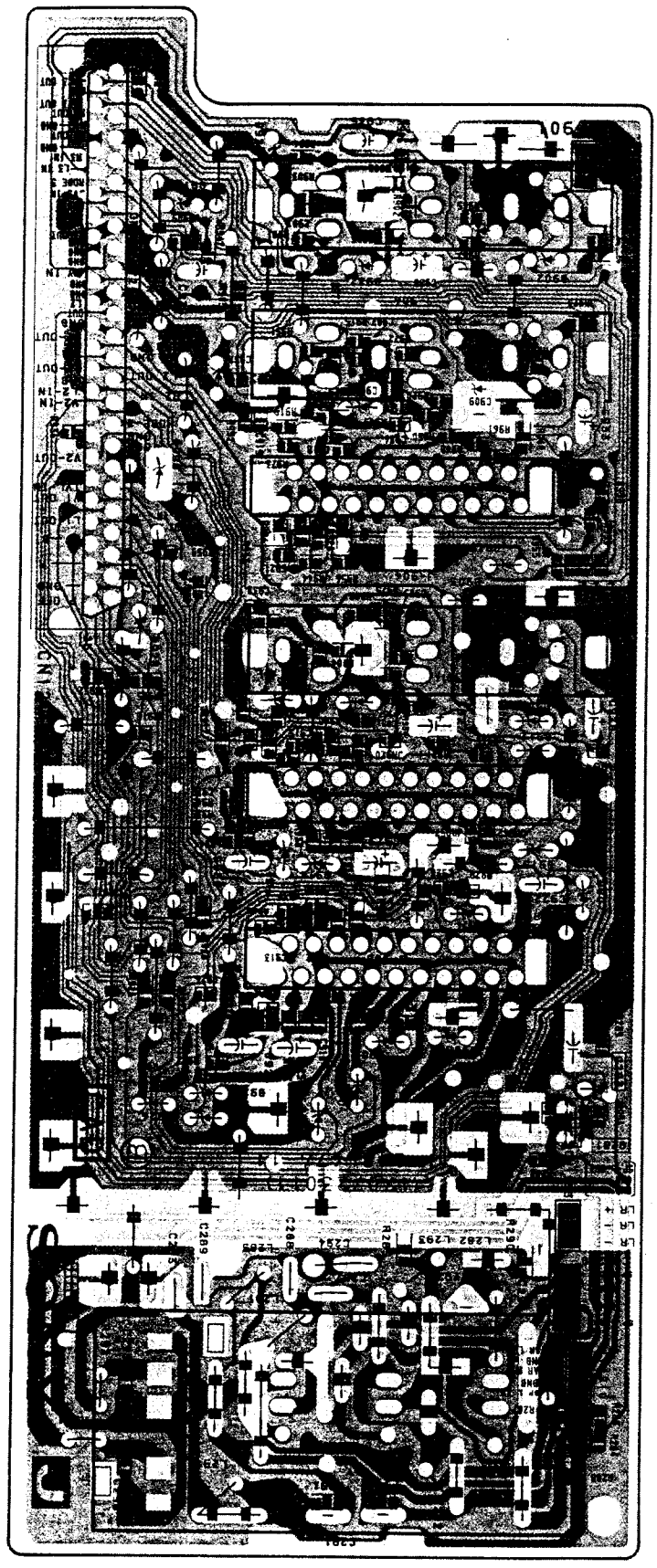
9 | 10 | 11



Note :

- : Pattern from the side which enables seeing.
- : Pattern of the rear side.

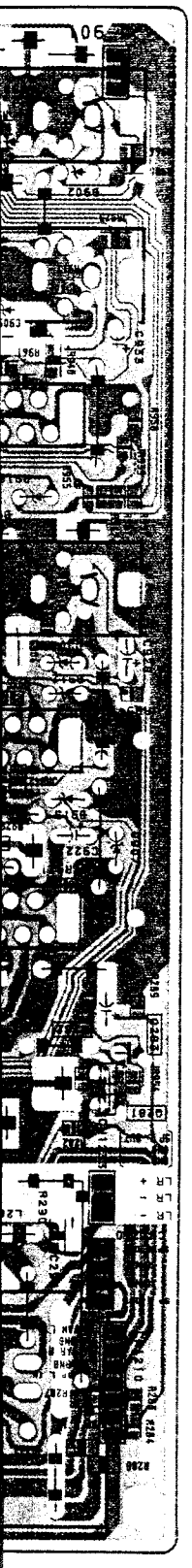
– J BOARD –



IC072
IC201
IC202
IC251
IC261
IC301
IC302
IC304
IC401
IC402
IC681
IC684
IC685

TRA

Q071
Q101
Q102
Q103
Q201
Q202
Q203
Q204
Q205
Q206
Q207
Q209
Q210
Q301
Q302
Q303
Q304
Q305
Q306
Q308
Q309
Q311
Q312
Q313
Q314
Q315
Q401
Q402
Q403

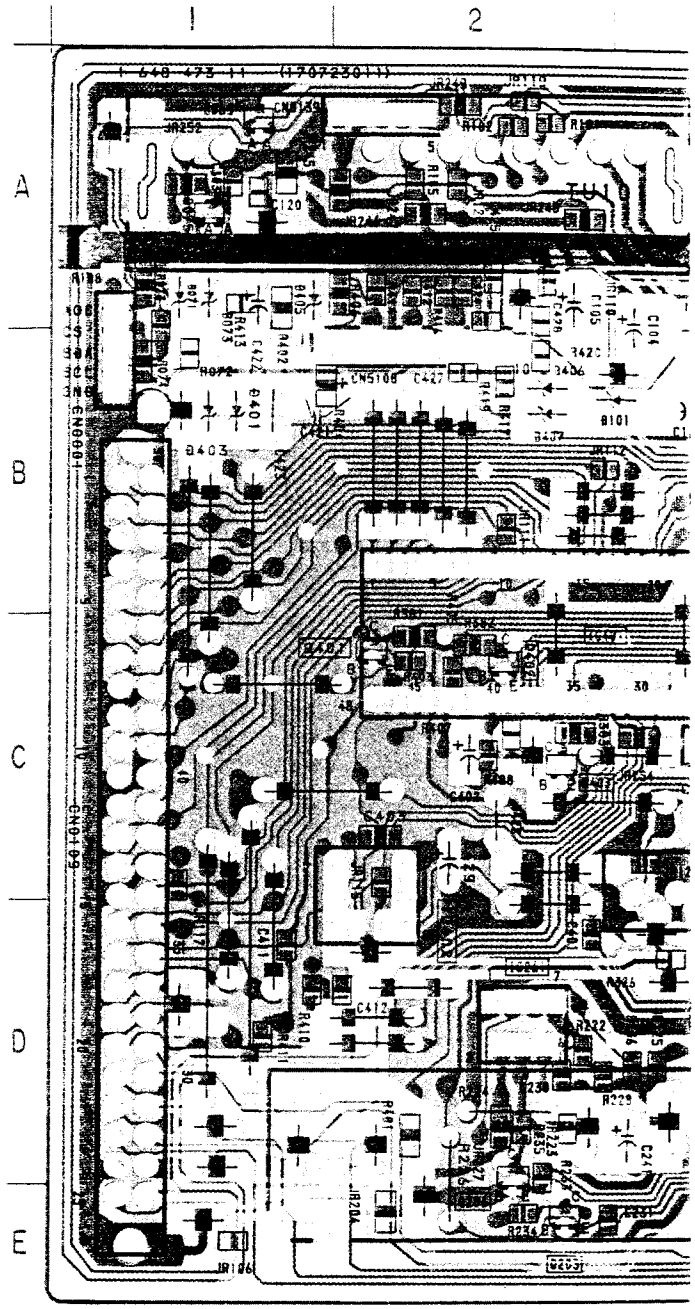


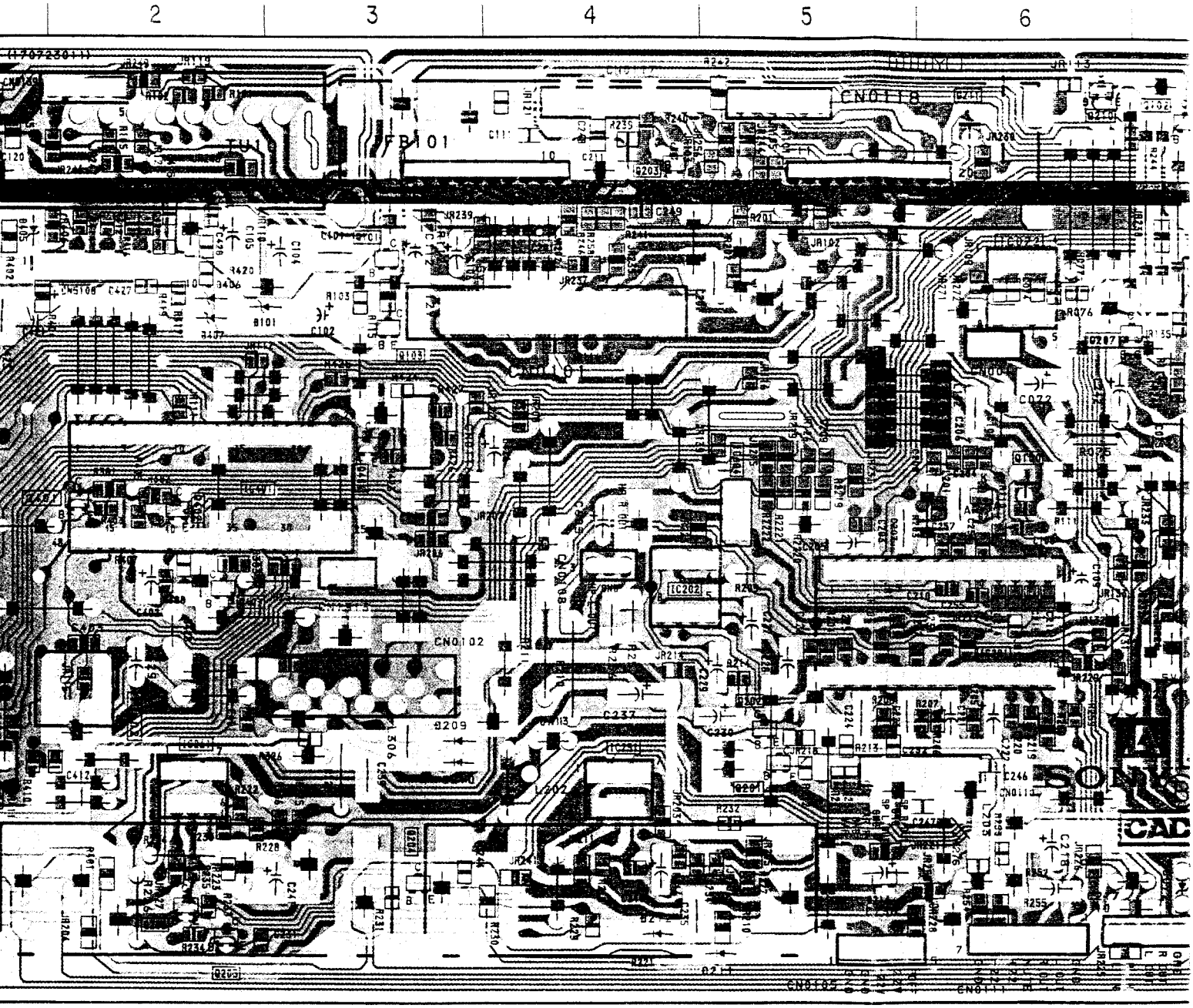
IC	
IC072	B – 6
IC201	C – 6
IC202	C – 4
IC251	D – 4
IC261	D – 2
IC301	A – 8
IC302	A – 10
IC304	C – 10
IC401	C – 2
IC402	D – 2
IC681	D – 9
IC684	C – 4
IC685	E – 8

TRANSISTOR	
Q071	D – 8
Q101	A – 3
Q102	A – 7
Q103	A – 3
Q201	D – 5
Q202	D – 5
Q203	A – 4
Q204	D – 3
Q205	E – 2
Q206	D – 2
Q207	B – 6
Q209	E – 7
Q210	A – 6
Q301	A – 7
Q302	B – 7
Q303	D – 10
Q304	D – 10
Q305	A – 8
Q306	D – 10
Q308	C – 9
Q309	C – 9
Q311	C – 8
Q312	C – 8
Q313	B – 8
Q314	C – 7
Q315	D – 7
Q401	C – 2
Q402	C – 2
Q403	C – 2
Q404	B – 3
Q581	B – 9
Q582	B – 9
Q610	E – 9
Q681	E – 7
Q682	D – 9

DIODE	
D068	B – 7
D069	A – 1
D071	A – 1
D073	A – 1
D075	A – 1
D077	B – 7
D078	B – 7
D079	B – 7
D101	B – 2
D206	D – 7
D207	E – 7
D208	D – 7
D209	D – 3
D210	D – 3
D211	E – 5
D212	E – 4
D213	D – 5
D214	C – 6
D301	B – 9
D302	A – 9
D304	B – 10
D305	C – 9
D306	D – 10
D307	D – 10
D308	D – 10
D311	C – 9
D312	C – 8
D313	C – 7
D381	C – 8
D401	B – 1
D403	B – 1
D405	A – 1
D406	B – 2
D407	B – 2
D571	B – 9
D681	E – 8
D683	D – 9

– A BOARD –

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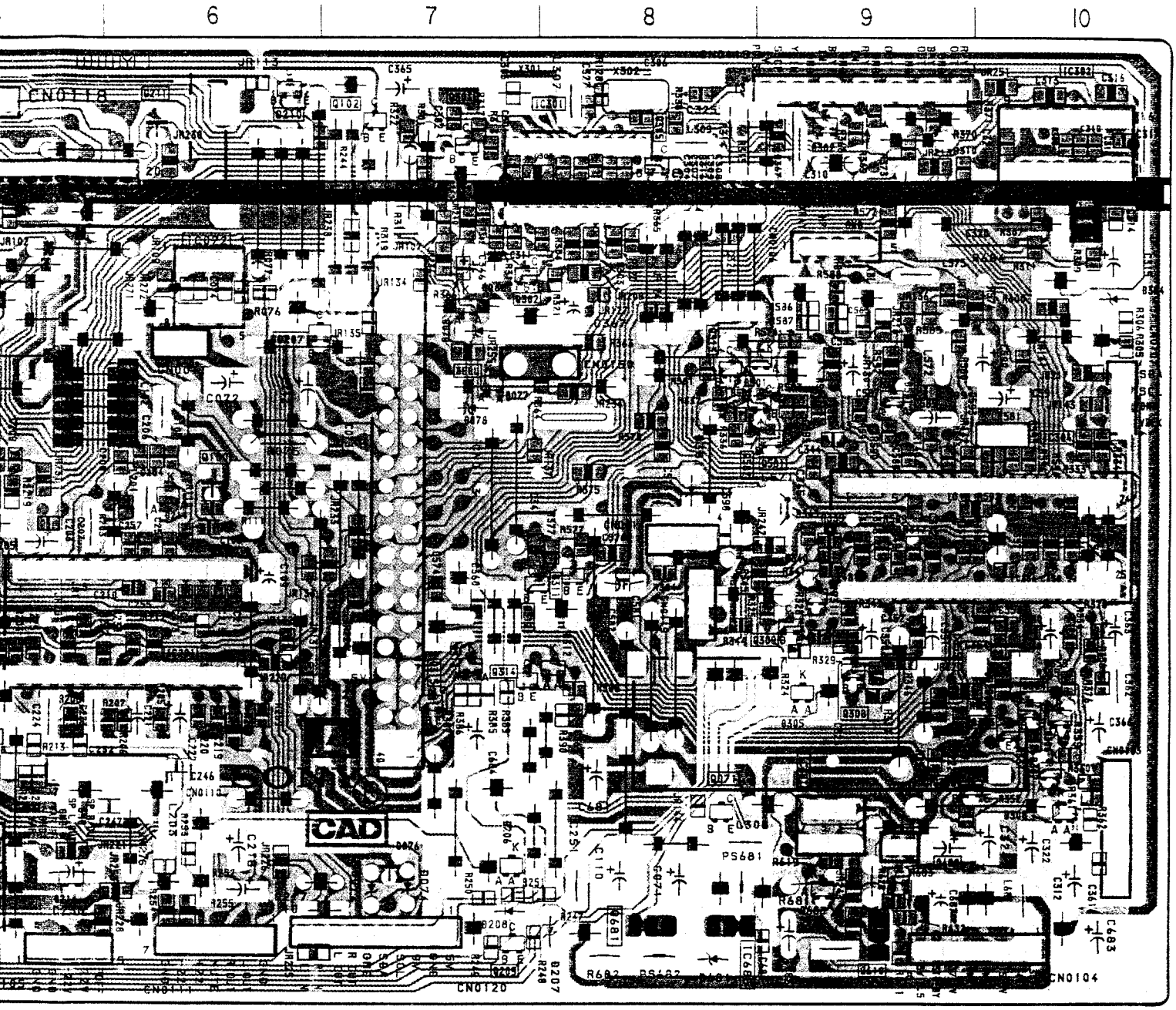
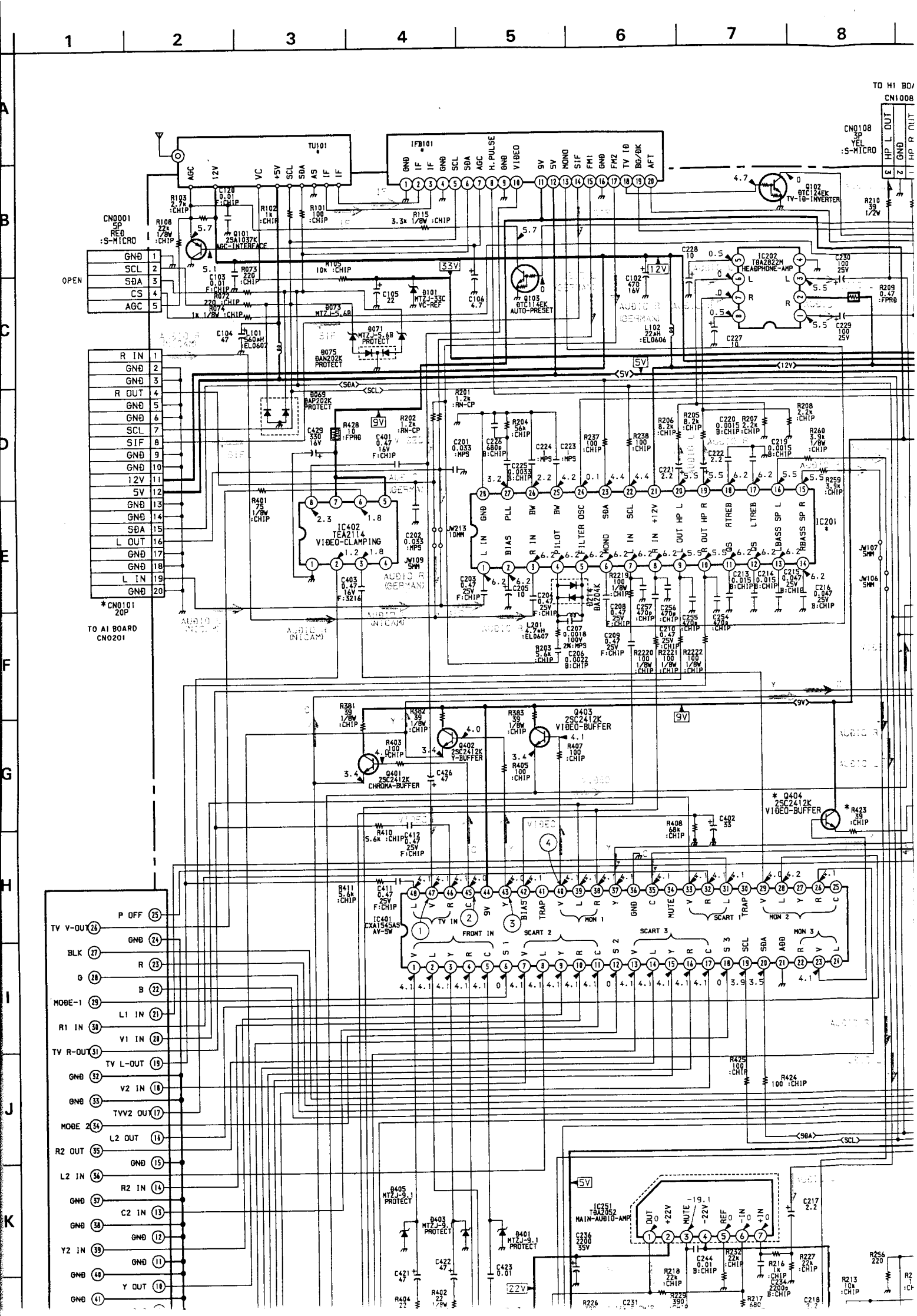


Note :

- : Pattern from the side which enables seeing.
- : Pattern of the rear side.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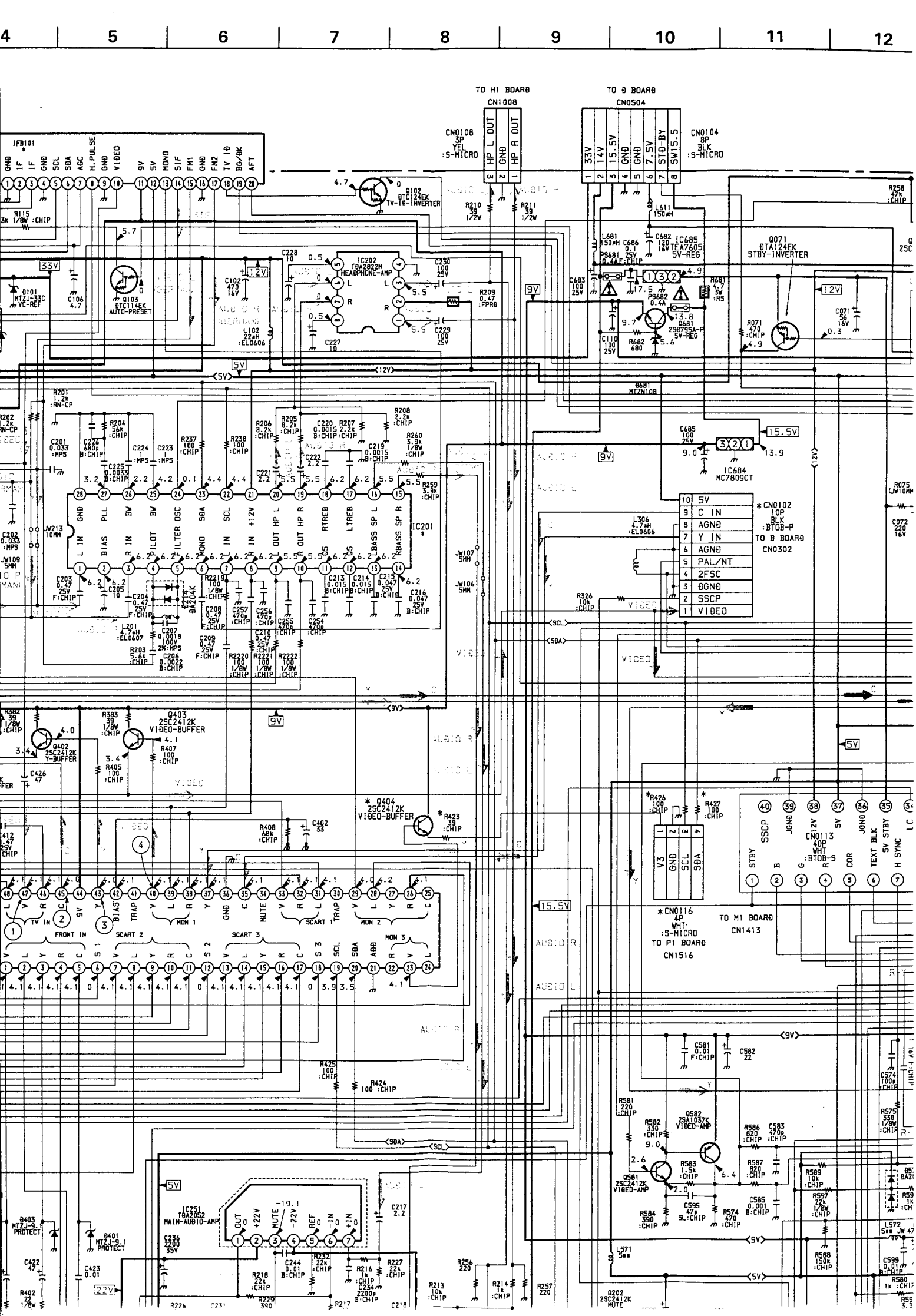
CN0001
5P
RED
:S-MICRO
GND
SCL
SDA
CS
AGC
OPEN
CN0108
3P
YEL
:S-MICRO
HP L OUT
GND
HP R OUT
Q102
DTC124EK
TV-IB-INVERTER
Q101
2SA1037K
AGC-INTERFACE
Q103
DTC114EK
AUTO-PRESET
IC202
TBAZ822M
HEADPHONE-AMP
IC201
IC402
TEA2114
VIDEO-CLAMPING
IC401
CXA1545AS
AV-SW
IC251
TBA2052
MAIN-AUDIO-AMP
Q401
2SC2412K
CHROMA-BUFFER
Q402
2SC2412K
Y-BUFFER
Q403
2SC2412K
VIDEO-BUFFER
* Q404
2SC2412K
VIDEO-BUFFER
*CN0101
20P
TO AI BOARD
CN0201
TO H1 BOA
CN1006
R IN
R OUT
L IN
L OUT
12V
5V
9V
33V
22V
SDA
SCL
SIF
AUDIO R (GERMAN)
AUDIO L (GERMAN)
AUDIO R (NICAM)
AUDIO L (NICAM)
VIDEO
TV IN
FRONT IN
SCART 1
SCART 2
SCART 3
MON 1
MON 2
MON 3
P OFF
TV V-OUT
BLK
MODE-1
R1 IN
TV R-OUT
MODE 2
R2 OUT
L2 IN
Y2 IN
Y OUT
TV L-OUT
V1 IN
V2 IN
TVV2 OUT
L2 OUT
R2 IN
C2 IN
L1 IN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TO H1 BOARD
CN1008
CN0108
3P
YEL
:S-MICRO
HP L OUT
GND
HP R OUT
TO B BOARD
CN0504
CN0104
8P
BLK
:S-MICRO
33V
14V
15.5V
GND
GND
7.5V
STB-BY
SW15.5
IFB101
GND
IF
IF
GND
SCL
SDA
AGC
H.PULSE
GND
VIDEO
9V
5V
MONO
SIF
FM1
GND
FM2
TV 1B
BS/BK
AFT
Q102
BTC124EK
TV-1B-INVERTER
R210
39
1/2W
R211
39
1/2W
L611
150uH
L681
150uH
C686
0.1
25V
PS681
0.4A:CHIP
C682
120
16V
IC685
TEA7605
5V-REG
Q071
DTA124EK
STBY-INVERTER
R258
47k
:CHIP
C683
100
25V
R681
4.7
3W
:RS
PS682
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Q681
2SD755A-P
5V-REG
R682
680
C110
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R071
470
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C071
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16V
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VC-REF
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AUTO-PRESET
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16V
C228
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IC202
TDA2822M
HEADPHONE-AMP
C230
100
25V
C229
100
25V
C227
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R209
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22uH
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:RN-CP
R202
1.2k
:RN-CP
R204
56k
:CHIP
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:MPS
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B:CHIP
C225
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B:CHIP
C224
:MPS
C223
:MPS
R237
100
:CHIP
R238
100
:CHIP
R206
8.2k
:CHIP
R205
8.2k
:CHIP
C220
0.0015
B:CHIP
R207
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:CHIP
R208
2.2k
:CHIP
C219
0.0015
B:CHIP
R260
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1/8W
:CHIP
C222
2.2
C221
2.2
R259
3.9k
:CHIP
IC201
GND
PLL
BW
BW
FILTER OSC
SDA
SCL
+12V
OUT HP L
OUT HP R
RTREB
LTREB
BASS SP L
BASS SP R
L IN
BIAS
R IN
PILOT
MONO
IN
IN
JW213
10MM
JW109
5MM
JW107
5MM
JW106
5MM
C203
0.47
25V
F:CHIP
C205
10
C204
0.47
25V
F:CHIP
D214
BA204K
C207
0.0018
100V
2K:MPS
R203
5.6k
:CHIP
C206
0.0022
B:CHIP
C208
0.47
25V
F:CHIP
C209
0.47
25V
F:CHIP
R2219
100
1/8W
:CHIP
C257
470p
:CHIP
C256
470p
:CHIP
C255
470p
:CHIP
C254
470p
:CHIP
C210
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25V
:CHIP
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1/8W
:CHIP
R2221
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1/8W
:CHIP
R2222
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1/8W
:CHIP
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B:CHIP
C214
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B:CHIP
C215
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25V
B:CHIP
C216
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25V
B:CHIP
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15.5V
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TO B BOARD
CN0302
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AGND
PAL/NT
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VIDEO
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VIDEO-BUFFER
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R405
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C426
47
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VIDEO-BUFFER
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R408
68k
:CHIP
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33
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*R427
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SCL
SDA
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WHT
:S-MICRO
TO P1 BOARD
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CN0113
40P
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SSCP
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12V
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STBY
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TEXT BLK
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TO M1 BOARD
CN1413
TV IN
FRONT IN
SCART 2
SCART 3
MON 1
SCART 1
MON 2
MON 3
BIAS
TRAP
MUTE
R425
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:CHIP
R424
100
:CHIP
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F:CHIP
C582
22
R581
220
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R586
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:CHIP
C583
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Q581
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VIDEO-AMP
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47p
SL:CHIP
R584
390
:CHIP
R574
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:CHIP
C585
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R597
22k
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JW 47
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R580
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REF
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+IN
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R218
22k
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R229
390
R216
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:CHIP
C234
2200p
B:CHIP
R227
22k
:CHIP
C217
2.2
R256
220
R213
10k
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R214
1k
:CHIP
R257
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Q401
MTZJ-9.1
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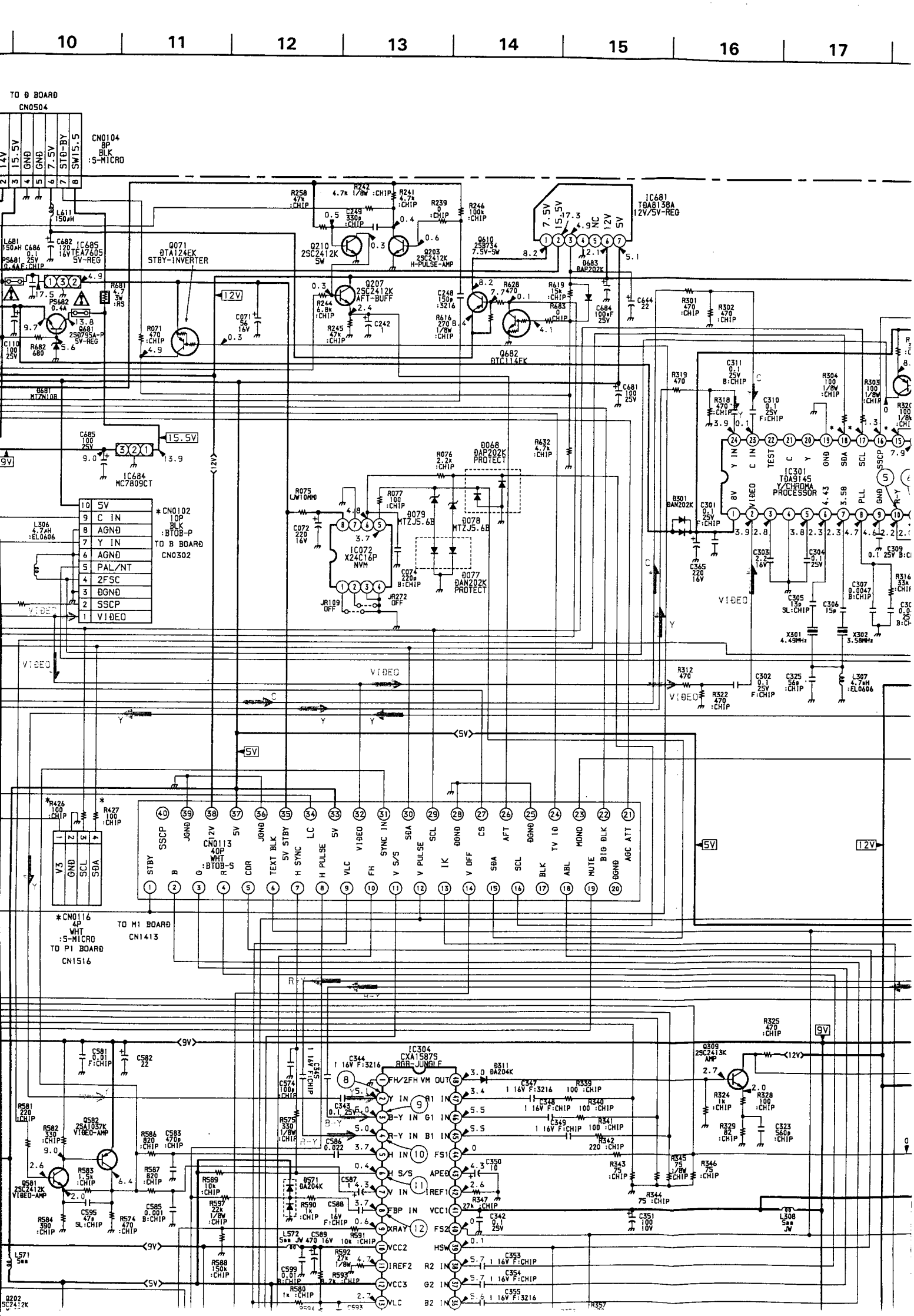
VIDEO
AUDIO R
AUDIO L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TO B BOARD
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IC685
TEA7605
5V-REG
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DTA124EK
STBY-INVERTER
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AFT-BUFF
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5W
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H PULSE
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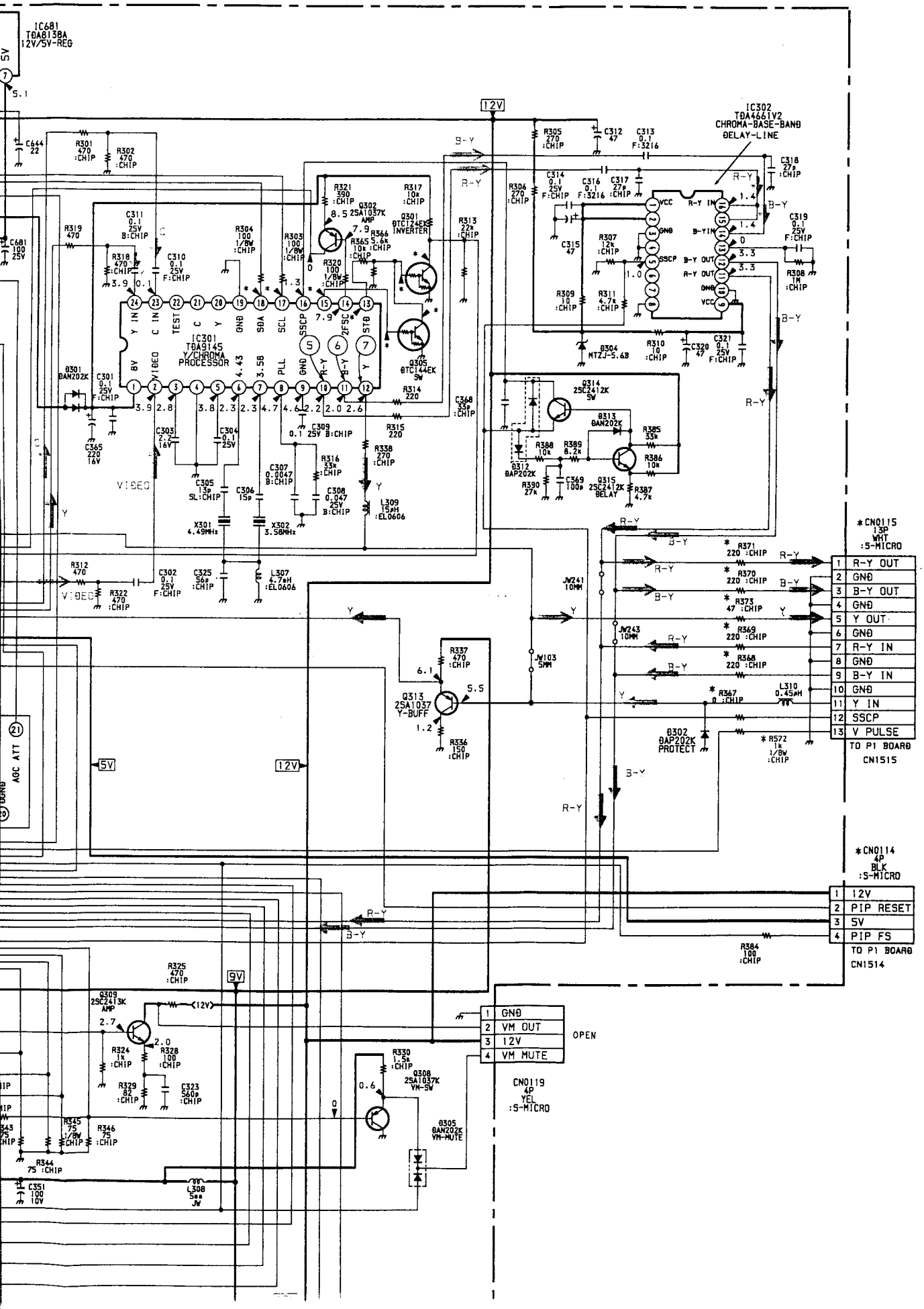
B-Y IN
R-Y IN
H IN
H S/S
V IN
FBP IN
XRAY
VCC2
REF2
VCC3
VLC
R1 IN
G1 IN
B1 IN
FS1
APED
REF1
VCC1
FS2
HSW
R2 IN
G2 IN
B2 IN
Q309
2SC2413K
AMP
Q581
2SC2412K
VIDEO-AMP
Q582
2SA1037K
VIDEO-AMP
D571
DA204K
D311
DA204K
L572
5mm JW
L571
5mm
L308
5mm JW
Q202
2SC2412K
5V
9V
12V



• WAVEFC

① PAL
1.1 Vp-

② NTS
1.8 Vp-

④ SEC
2.4 Vp-

⑥ PAL
0.8 Vp-

⑧ PAL
0.5 Vp-

⑩ PAL.
1.2 Vp-

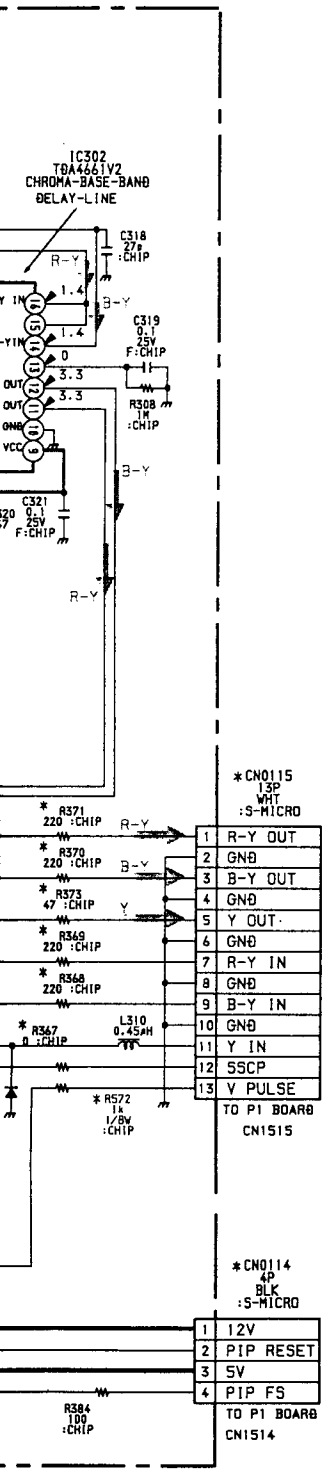
⑭
4.7 Vp-

⑲
3.6 Vp-p

As to the
the mark ※
Diagram, se

A BOARD

	PA
IC301 ③	0.
③	0.
③	4.
③	4.
IC301 ⑧	0



• WAVEFORMS A BOARD

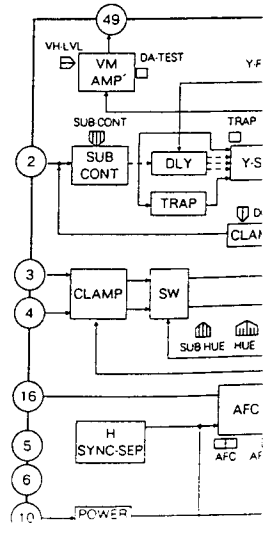
① PAL 1.1 Vp-p (H)	① SECAM 1.2 Vp-p (H)	① NTSC 1.4 Vp-p (H)	② PAL 1.9 Vp-p (H)	②
② NTSC 1.8 Vp-p (H)	③ PAL 2.3 Vp-p (H)	③ SECAM 2.2 Vp-p (H)	③ NTSC 2.7 Vp-p (H)	④
④ SECAM 2.4 Vp-p (H)	④ NTSC 2.8 Vp-p (H)	⑤ PAL 0.6 Vp-p (H)	⑤ SECAM 1.2 Vp-p (H)	⑤
⑥ PAL 0.8 Vp-p (H)	⑥ SECAM 1.5 Vp-p (H)	⑥ NTSC 0.7 Vp-p (H)	⑦ PAL, SECAM 0.5 Vp-p (H)	⑦
⑧ PAL 0.5 Vp-p (H)	⑧ SECAM 0.4 Vp-p (H)	⑧ NTSC 0.6 Vp-p (H)	⑨ PAL, SECAM 1.5 Vp-p (H)	⑨
⑩ PAL, SECAM 1.2 Vp-p (H)	⑩ NTSC 1.0 Vp-p (H)	⑪ 5.2 Vp-p (H)	⑫ 6.7 Vp-p (H)	⑬
⑭ 4.7 Vp-p (H)	⑮ 3.8 Vp-p (H)	⑯ 5.0 Vp-p (H)	⑰ 8.9 Vp-p (H)	⑱
⑲ 3.6 Vp-p (H)	⑳ 4.1 Vp-p (H)			

As to the voltage volue shown by the mark ※ on the Schematic Diagram, see the another list.

A BOARD

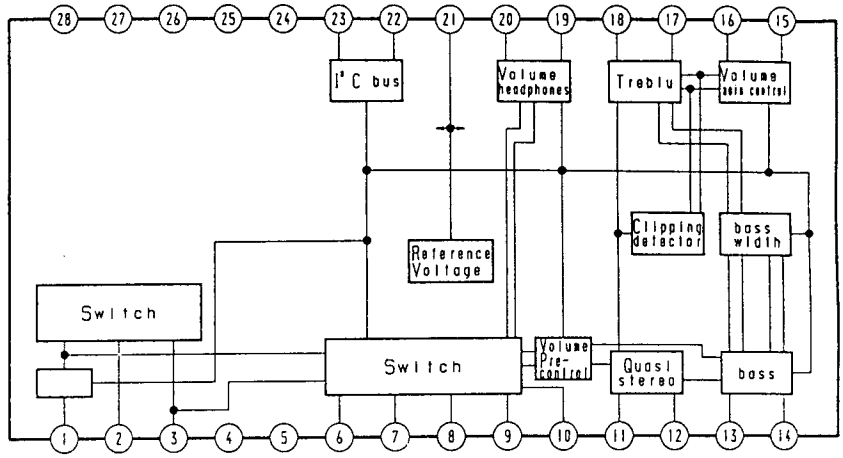
	PAL	SECAM	NTSC3.58	NTSC4.43
IC301 ⑬	0.0	0.0	4.8	4.9
⑮	0.0	5.0	5.0	0.0
⑰	4.7	4.2	3.6	4.1
⑱	4.8	4.4	4.6	4.8
Q301(B)	0.0	0.0	0.0	1.6
(C)	5.6	5.6	5.6	0.1

• A BOARD IC304

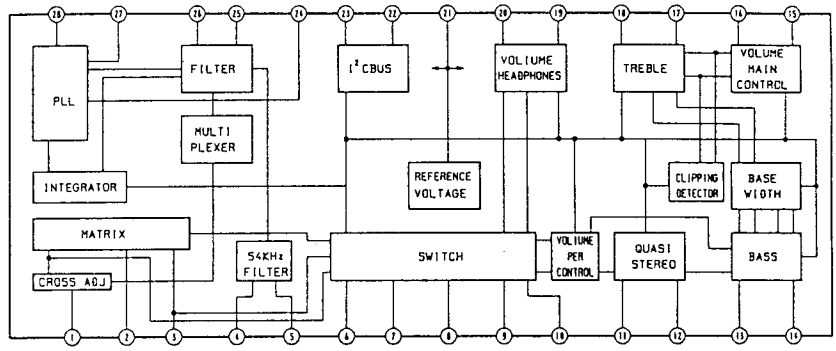


H)	② PAL 1.9 Vp-p (H)	② SECAM 1.3 Vp-p (H)
H)	③ NTSC 2.7 Vp-p (H)	④ PAL 2.3 Vp-p (H)
H)	⑤ SECAM 1.2 Vp-p (H)	⑤ NTSC 0.5 Vp-p (H)
H)	⑦ PAL, SECAM 0.5 Vp-p (H)	⑦ NTSC 0.6 Vp-p (H)
H)	⑨ PAL, SECAM 1.5 Vp-p (H)	⑨ NTSC 1.5 Vp-p (H)
H)	⑫ 6.7 Vp-p (H)	⑬ 0.12 Vp-p(540KHZ)
H)	⑰ 8.9 Vp-p (H)	⑱ 3.3 Vp-p (H)

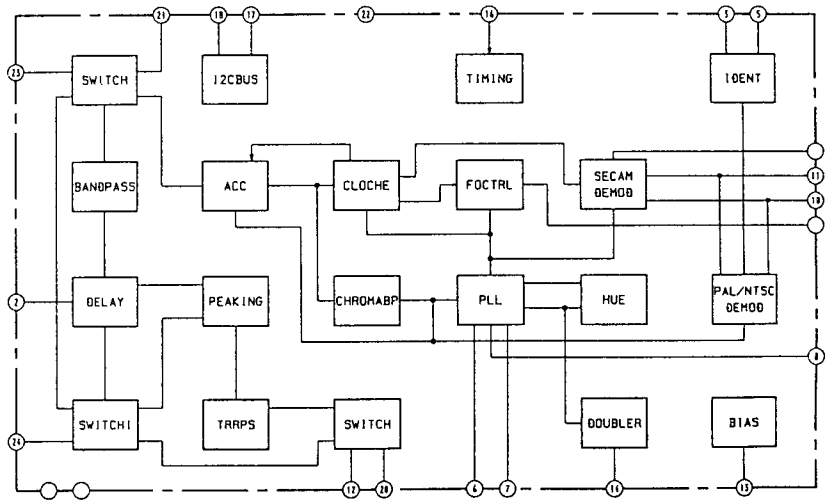
• A BOARD IC201 TDA6622 (UK Model only)



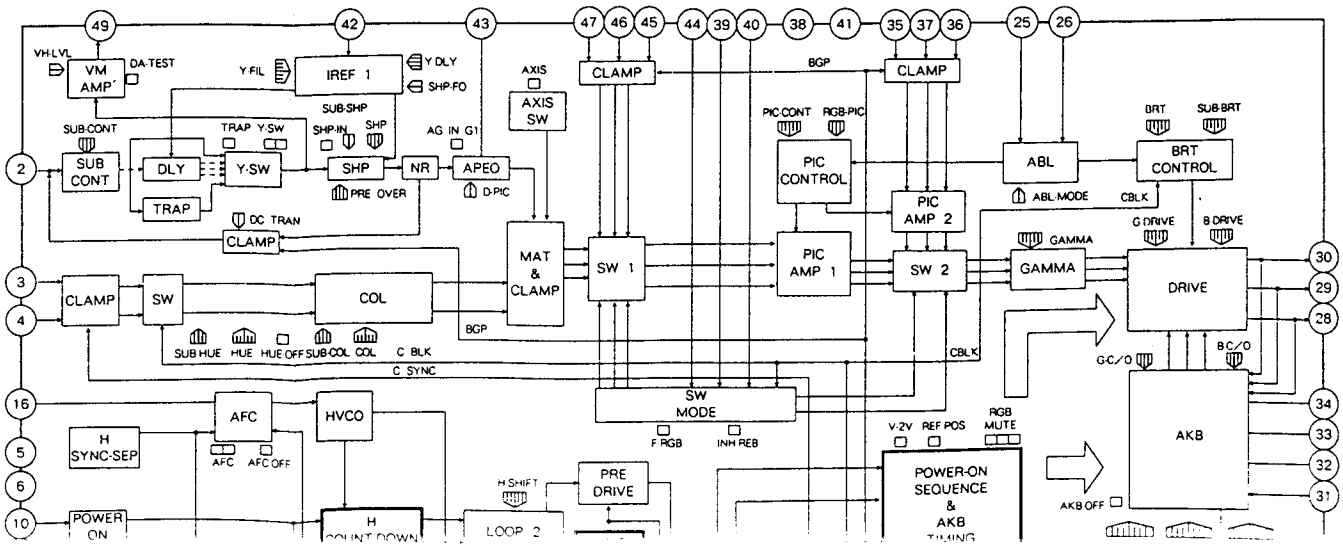
• A BOARD IC201 TDA6612

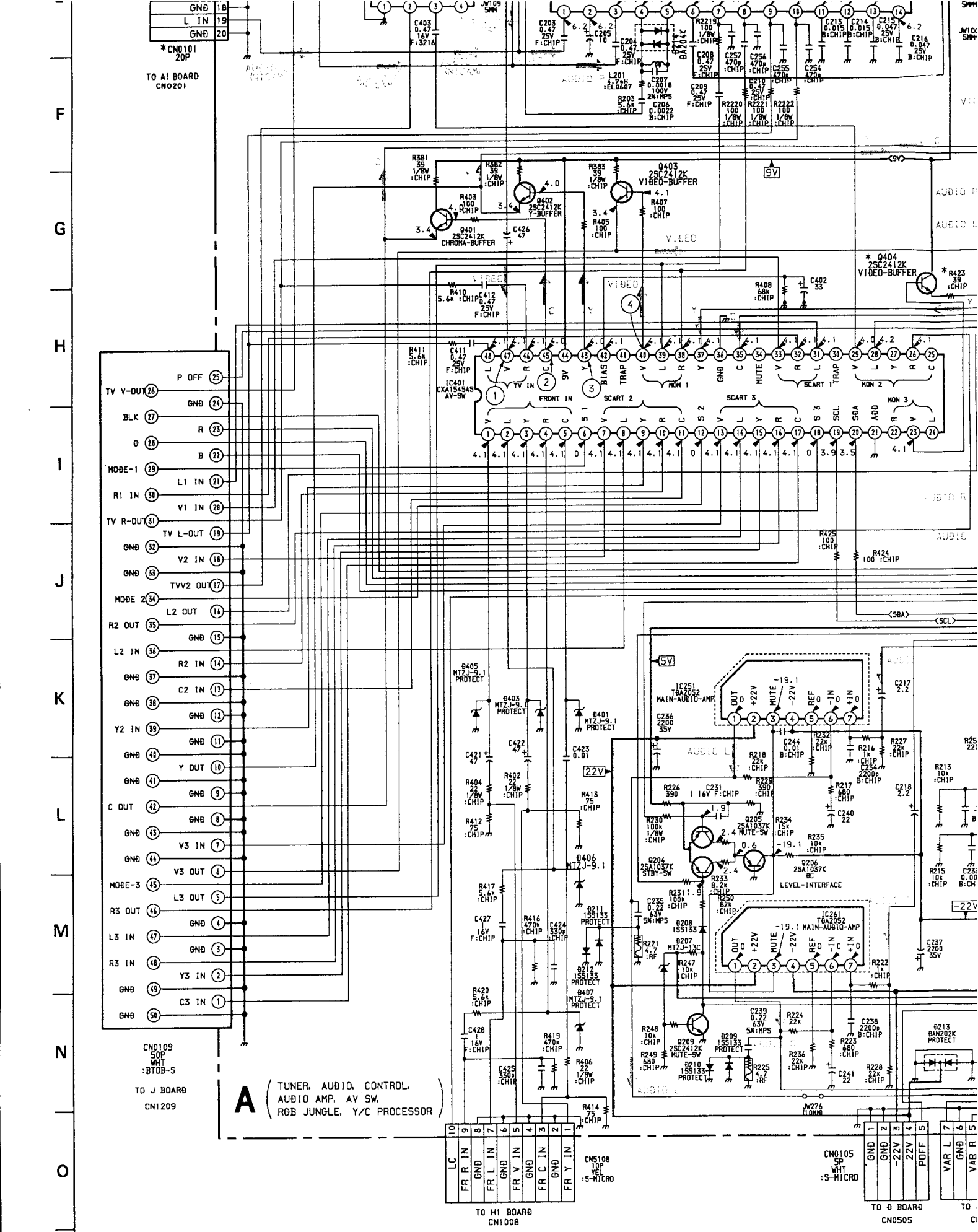


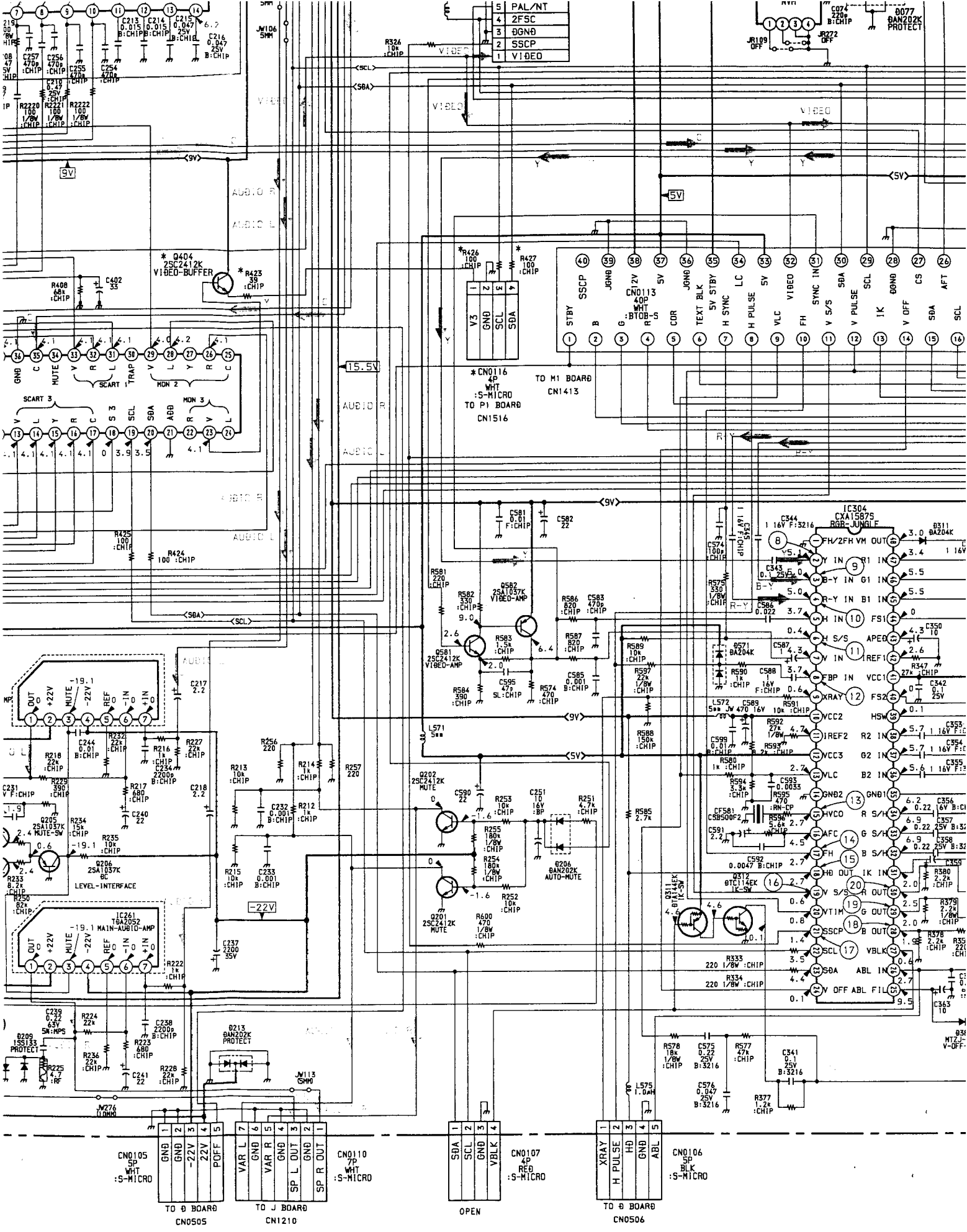
• A BOARD IC301 TDA9145

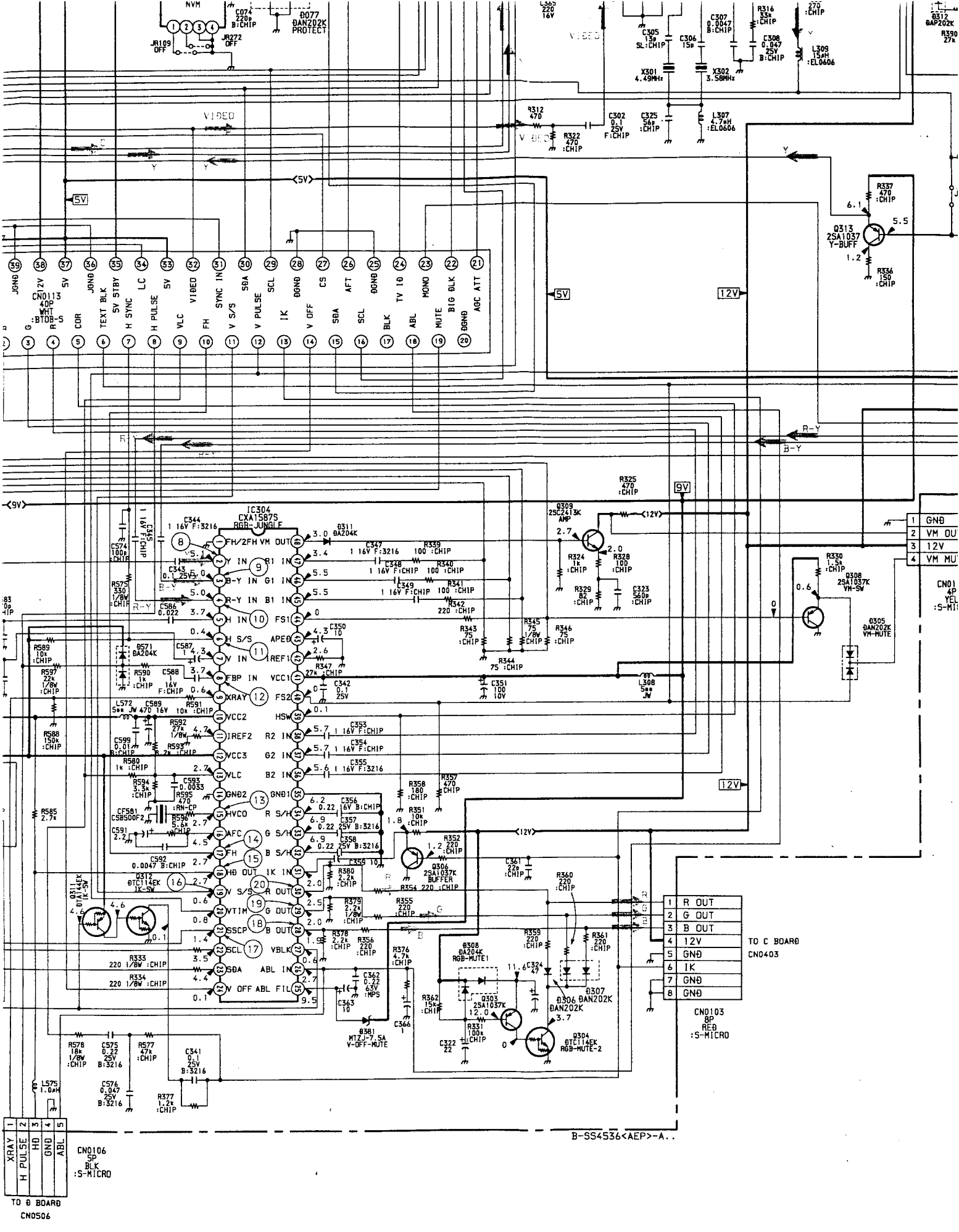


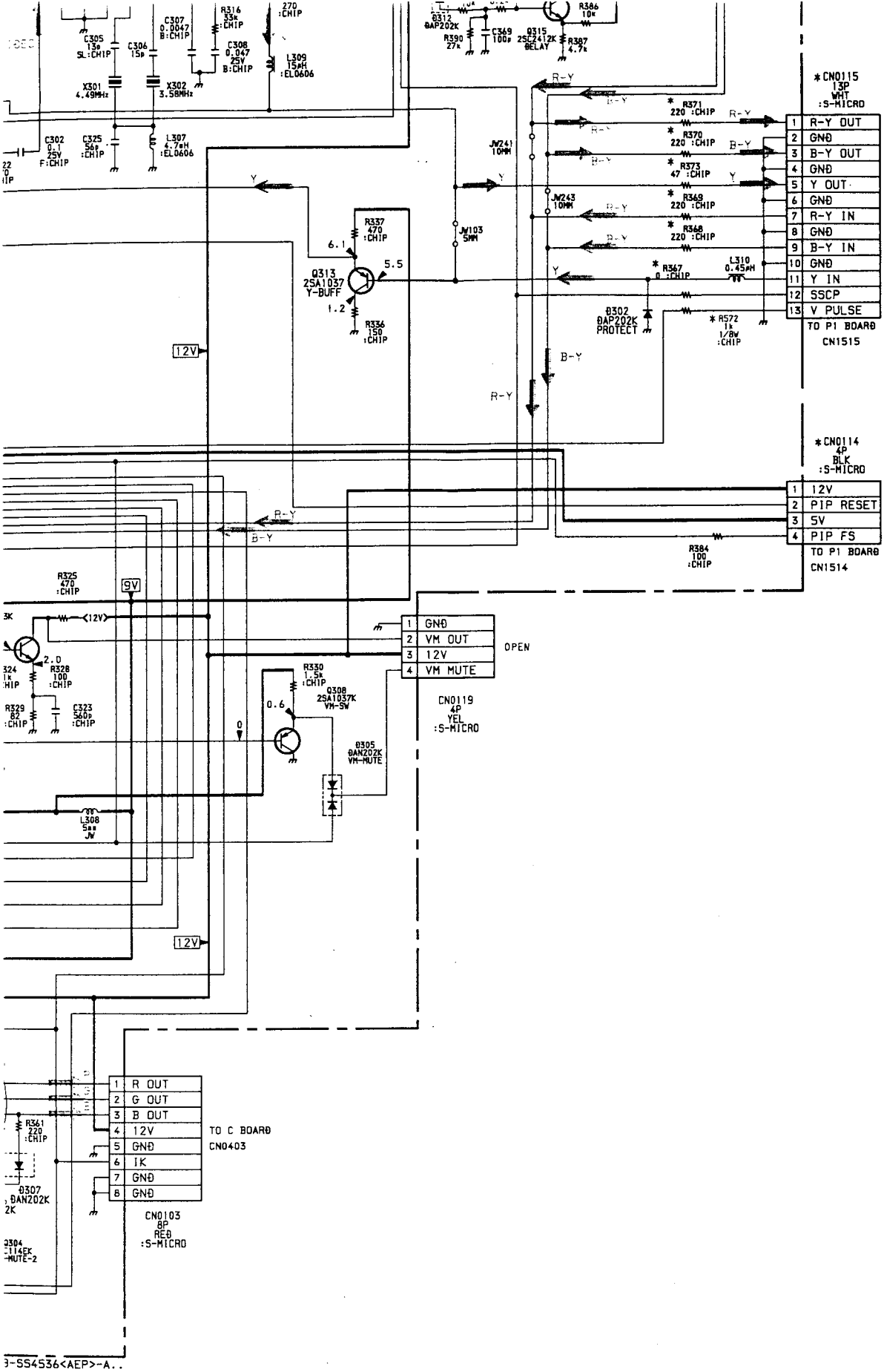
• A BOARD IC304 CXA1587S




A TUNER, AUDIO, CONTROL, AUDIO AMP, AV SW, RGB JUNGLE, Y/C PROCESSOR
CN0101 20P
TO A1 BOARD CN0201
CN0109 50P WHT :BTOB-S
TO J BOARD CN1209
CN5108 10P YEL :S-MICRO
TO H1 BOARD CN1008
CN0105 5P WHT :S-MICRO
TO Q BOARD CN0505
IC401 CXA1545AS AV-SW
IC251 T0A2052 MAIN-AUDIO-AMP
IC261 T0A2052 MAIN-AUDIO-AMP
Q403 2SC2412K VIDEO-BUFFER
Q402 2SC2412K Y-BUFFER
Q401 2SC2412K CHROMA-BUFFER
Q404 2SC2412K VIDEO-BUFFER
Q205 2SA1037K MUTE-SW
Q204 2SA1037K STBY-SW
Q206 2SA1037K BC LEVEL-INTERFACE
Q209 2SC2412K MUTE-SW
Q213 DAN202K PROTECT
TV IN
FRONT IN
SCART 2
SCART 3
MON 1
SCART 1
MON 2
MON 3
P OFF
TV V-OUT
BLK
MODE-1
L1 IN
R1 IN
V1 IN
TV R-OUT
TV L-OUT
V2 IN
TVV2 OUT
MODE 2
L2 OUT
R2 OUT
L2 IN
R2 IN
C2 IN
Y2 IN
Y OUT
C OUT
V3 IN
V3 OUT
MODE-3
L3 OUT
R3 OUT
L3 IN
R3 IN
Y3 IN
C3 IN
MUTE
BIAS
TRAP
SDA
SCL
ADD
LEVEL-INTERFACE


IC304
CXA1587S
RGB-JUNGLE
IC261
T6A2052
MAIN-AUDIO-AMP
LEVEL-INTERFACE
CN0105
5P
WHT
:S-MICRO
TO Ø BOARØ
CN0505
CN0110
7P
WHT
:S-MICRO
TO J BOARØ
CN1210
CN0107
4P
REØ
:S-MICRO
OPEN
CN0106
5P
BLK
:S-MICRO
TO Ø BOARØ
CN0506
CN0113
40P
WHT
:BTOB-S
TO M1 BOARØ
CN1413
*CN0116
4P
WHT
:S-MICRO
TO P1 BOARØ
CN1516
SCART 3
SCART 1
MON 2
MON 3
VIDEO-BUFFER
VIDEO-AMP
MUTE
AUTO-MUTE
PROTECT
5V
9V
15.5V
-22V
SDA
SCL
AUDIO R
AUDIO L
VIDEO
PAL/NT
2F5C
ØGNØ
SSCP


IC304
CXA1587S
RGB-JUNGLE
CN0113
40P
WHT
:BTOB-S
JGND
12V
5V
JGND
5V STBY
H SYNC
H PULSE
5V
VLC
VIDEO
FH
SYNC IN
V S/S
SDA
V PULSE
SCL
IK
DGND
V OFF
SDA
SCL
BLK
TV IO
ABL
MUTE
BIG BLK
DGND
AGC ATT
TEXT BLK
COR
CN0106
5P
BLK
:S-MICRO
XRAY
H PULSE
HD
GND
ABL
TO B BOARD
CN0506
CN0103
8P
RED
:S-MICRO
R OUT
G OUT
B OUT
12V
GND
IK
GND
GND
TO C BOARD
CN0403
GND
VM OUT
12V
VM MUTE
CN01
4P
YEL
:S-MI
B-SS4536<AEP>-A..



0.5 Vp-p (H)	0
⑩ PAL, SECAM 1.2 Vp-p (H)	⑪ 1
⑭ 4.7 Vp-p (H)	⑮ 3
⑲ 3.6 Vp-p (H)	⑳ 4

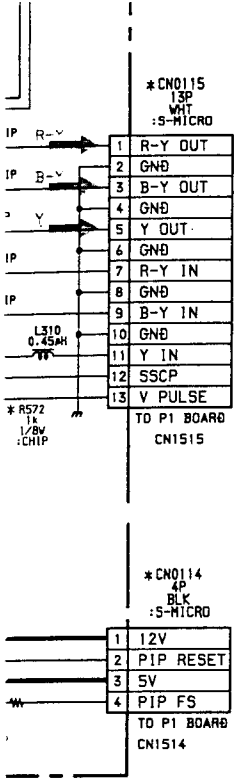
As to the voltage volue
the mark ※ on the Sche
Diagram, see the another

A BOARD

	PAL	SECAM	NT
IC301 ⑬	0.0	0.0	
⑮	0.0	5.0	
⑰	4.7	4.2	
⑱	4.8	4.4	
Q301(B)	0.0	0.0	
(C)	5.5	5.5	
Q305(B)	0.0	5.5	
(C)	0.0	0.0	

A BOARD ∗ MARK

Model	Italian	
CN0101	–	
CN0102	10P	
CN0114	–	
CN0115	–	
CN0116	–	
IC201	TDA6612	TI
IFB101	IFH-389	IF
Q404	–	2S
R367	–	3.9K
R368	–	220
R369	–	220
R370	–	220
R371	–	220
R373	–	47
R423	–	3
R426	–	100
R427	–	100
R572	–	1K
TU101	UV916H	U



0.5 Vp-p (H)	0.4 Vp-p (H)	0.6 Vp-p (H)	1.5 Vp-p (H)	1.5 Vp-p
⑩ PAL, SECAM 1.2 Vp-p (H)	⑩ NTSC 1.0 Vp-p (H)	⑪ 5.2 Vp-p (H)	⑫ 6.7 Vp-p (H)	⑬ 0.12 Vp-p
⑭ 4.7 Vp-p (H)	⑮ 3.8 Vp-p (H)	⑯ 5.0 Vp-p (H)	⑰ 8.9 Vp-p (H)	⑱ 3.3 Vp-p
⑲ 3.6 Vp-p (H)	⑳ 4.1 Vp-p (H)			

As to the voltage volue shown by the mark ※ on the Schematic Diagram, see the another list.

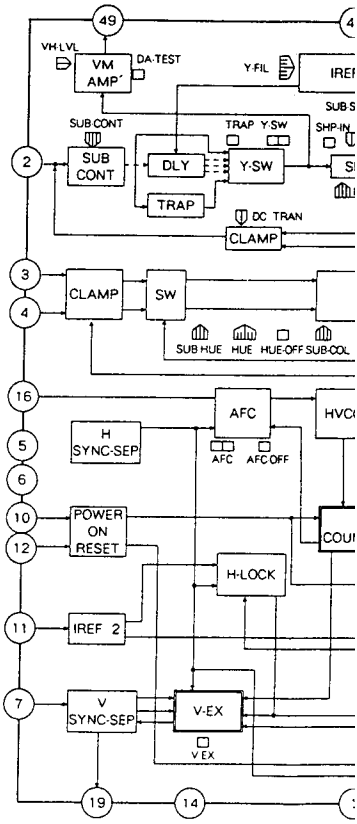
A BOARD

	PAL	SECAM	NTSC3.58	NTSC4.43
IC301 ⑬	0.0	0.0	4.8	4.9
⑮	0.0	5.0	5.0	0.0
⑰	4.7	4.2	3.6	4.1
⑱	4.8	4.4	4.6	4.8
Q301(B)	0.0	0.0	0.0	1.6
(C)	5.5	5.5	5.5	0.1
Q305(B)	0.0	5.5	5.5	0.0
(C)	0.0	0.0	0.0	1.6

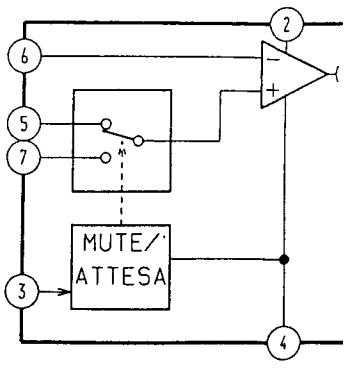
A BOARD ＊ MARK

Model	Italian	French	AEP	Spanish	UK
CN0101	–	–	–	20P	20P
CN0102	10P	–	10P	10P	10P
CN0114	–	4P	–	–	–
CN0115	–	13P	–	–	–
CN0116	–	4P	–	–	–
IC201	TDA6612	TDA6612	TDA6612	TDA6612	TDA6622
IFB101	IFH-389	IFH-389F	IFH-389	IFH-389	IFH-395
Q404	–	2SC2412K	–	–	–
R367	–	3.9K 1/10W	–	–	–
R368	–	220 1/10W	–	–	–
R369	–	220 1/10W	–	–	–
R370	–	220 1/10W	–	–	–
R371	–	220 1/10W	–	–	–
R373	–	47 1/10W	–	–	–
R423	–	39 : CHIP	–	–	–
R426	–	100 1/10W	–	–	–
R427	–	100 1/10W	–	–	–
R572	–	1K 1/10W	–	–	–
TU101	UV916H	UV916H	UV916H	UV916H	U944C

• A BOARD IC304 CXA15

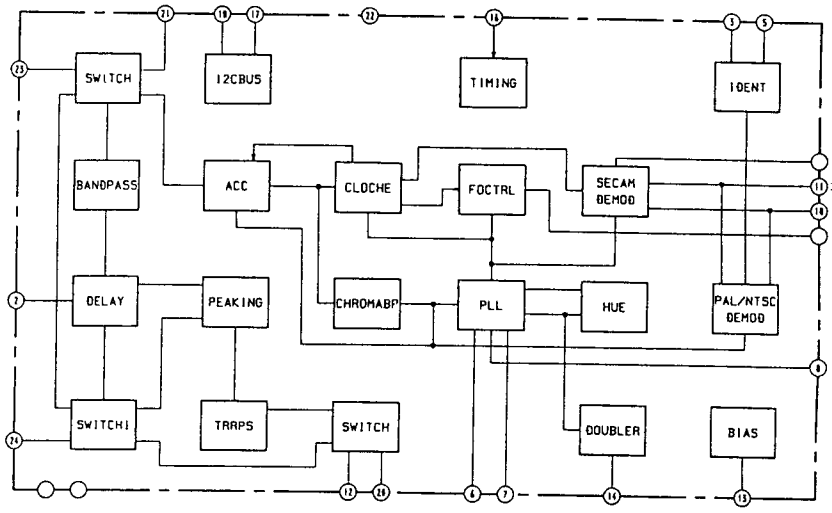


• A BOARD IC251/261 TDA

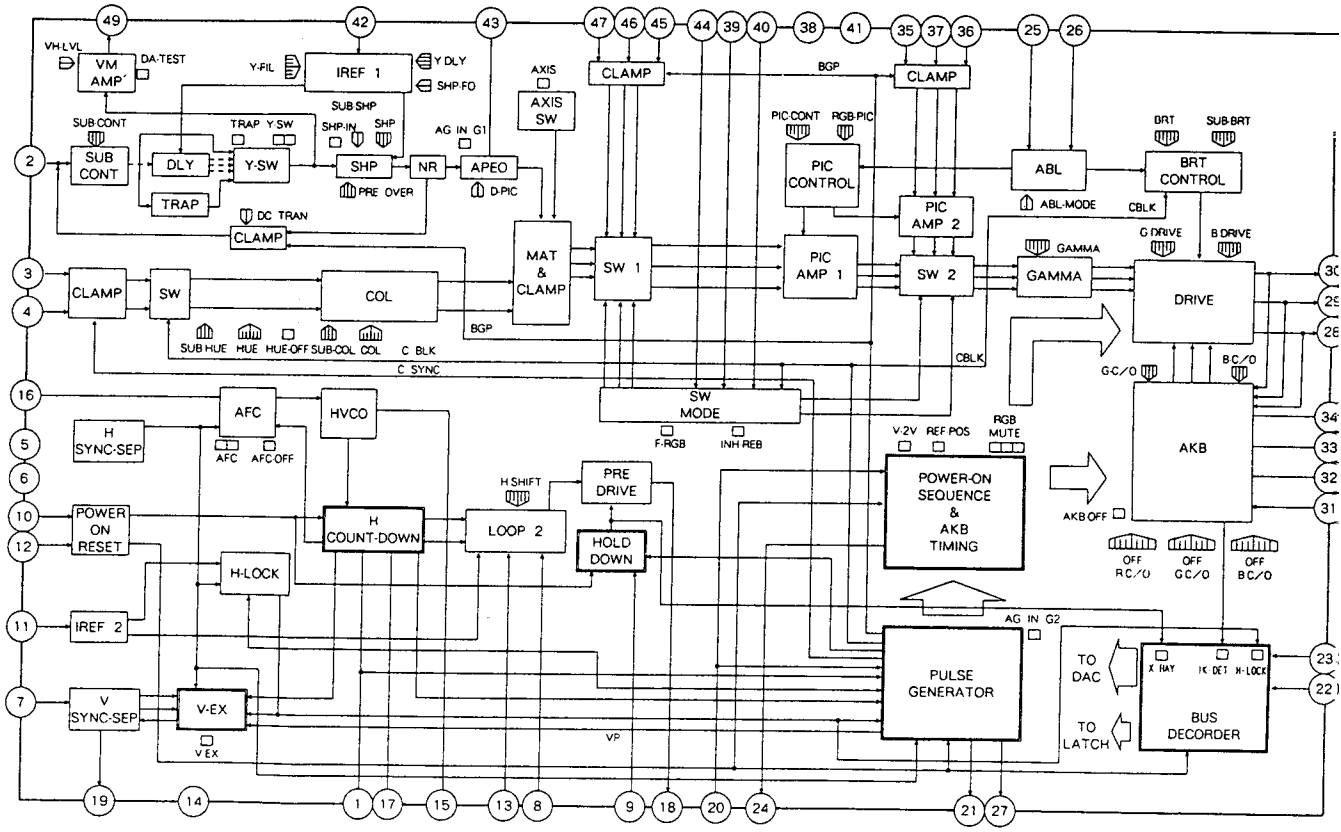


(H)	1.5 Vp-p (H)	1.5 Vp-p (H)
(H)	⑫ 6.7 Vp-p (H)	⑬ 0.12 Vp-p(540KHZ)
(H)	⑰ 8.9 Vp-p (H)	⑱ 3.3 Vp-p (H)

• A BOARD IC301 TDA9145

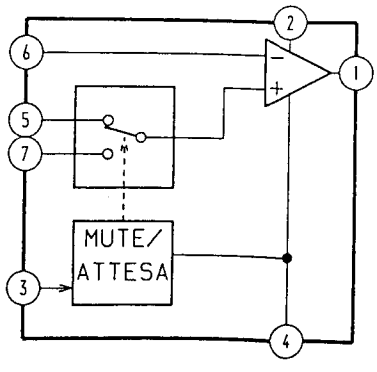


• A BOARD IC304 CXA1587S

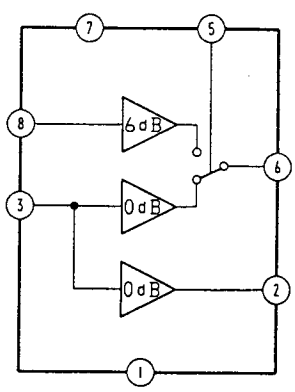


UK
20P
10P
–
–
–
TDA6622
IFH-395
–
–
–
–
–
–
–
–
–
–
–
U944C

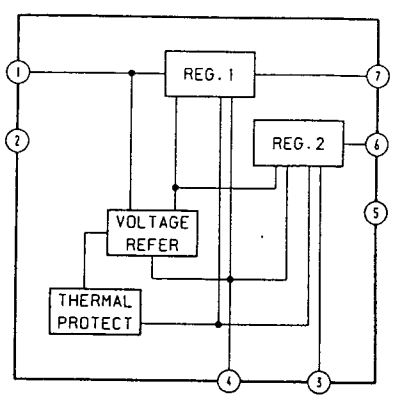
• A BOARD IC251/261 TDA2052



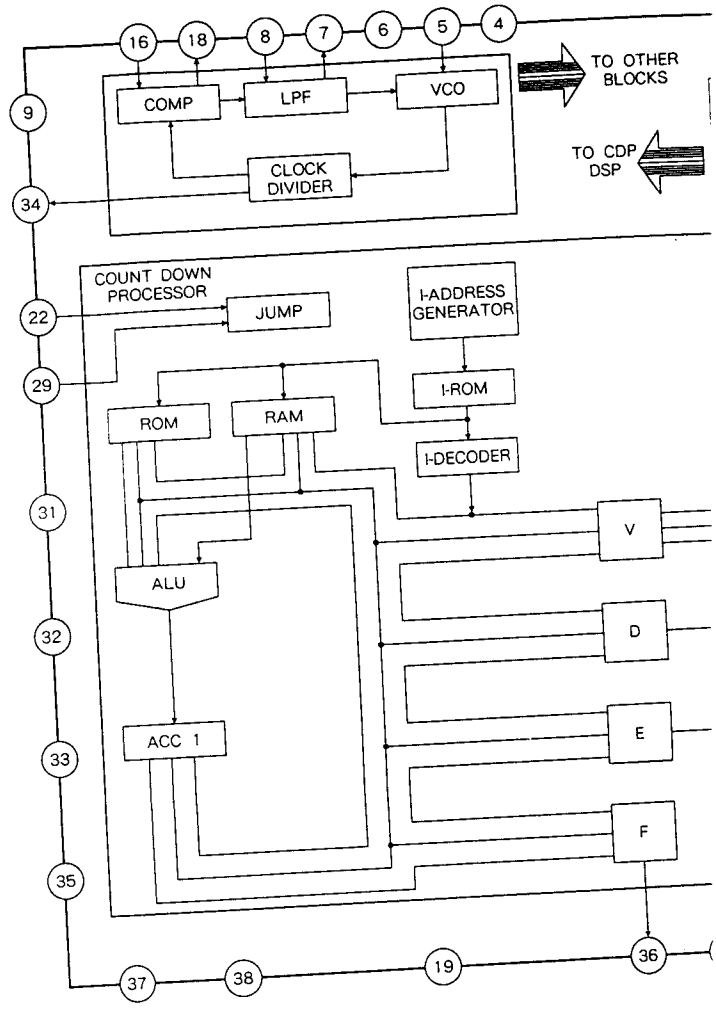
• A BOARD IC402 TEA2114

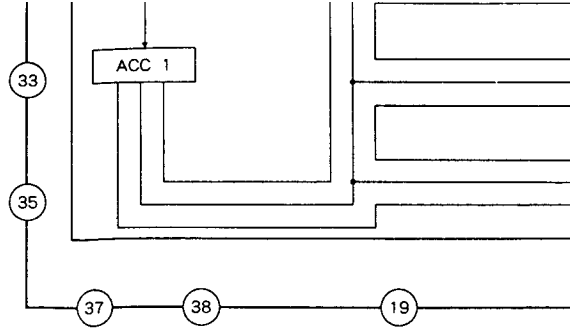


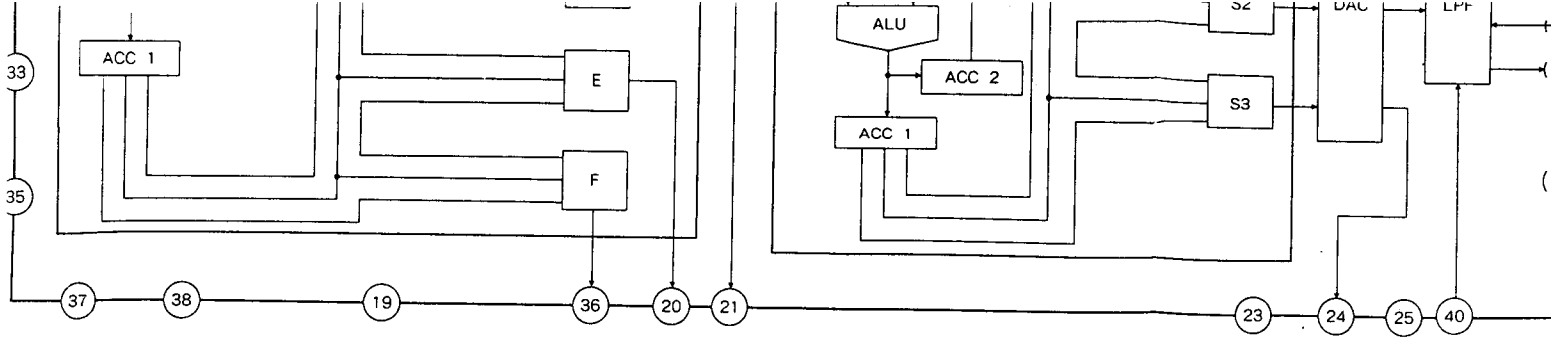
• A BOARD IC681 TDA8134A

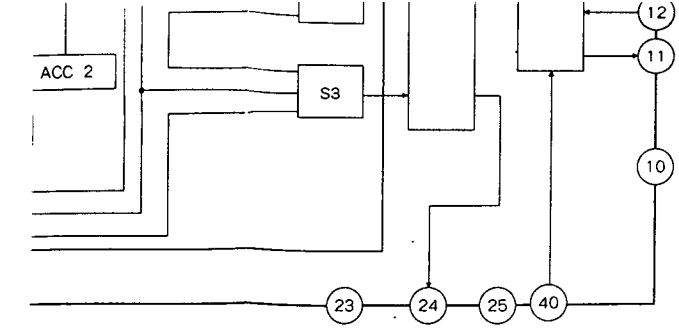


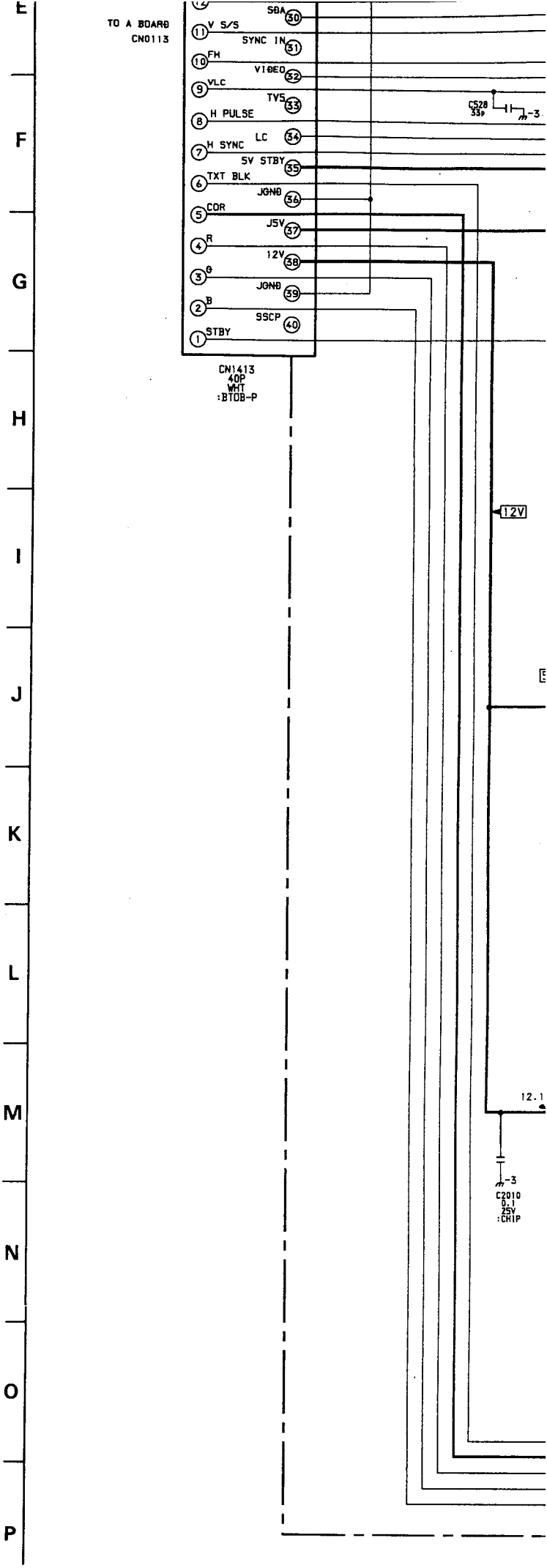
• M1 BOARD IC561 CXD2018Q

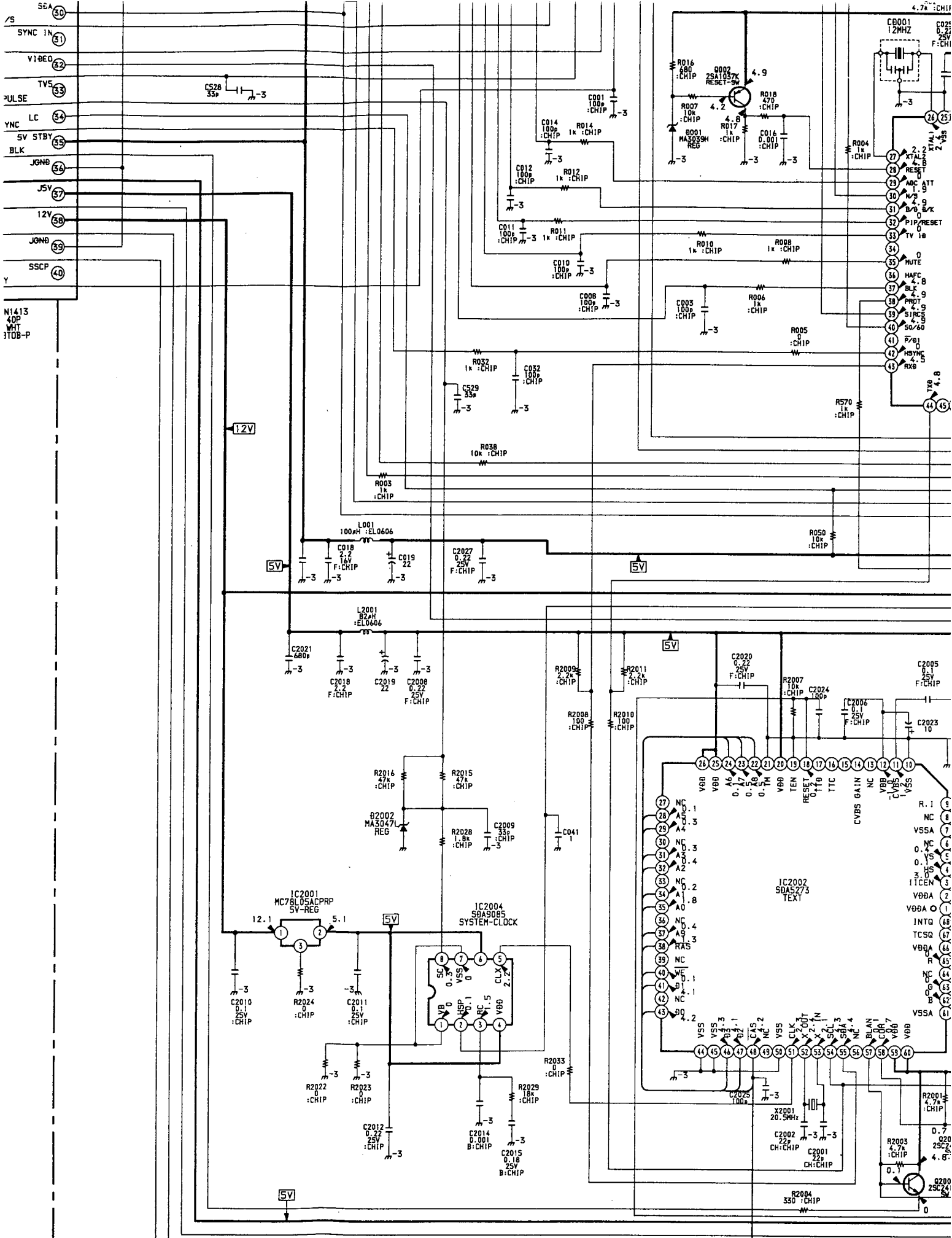


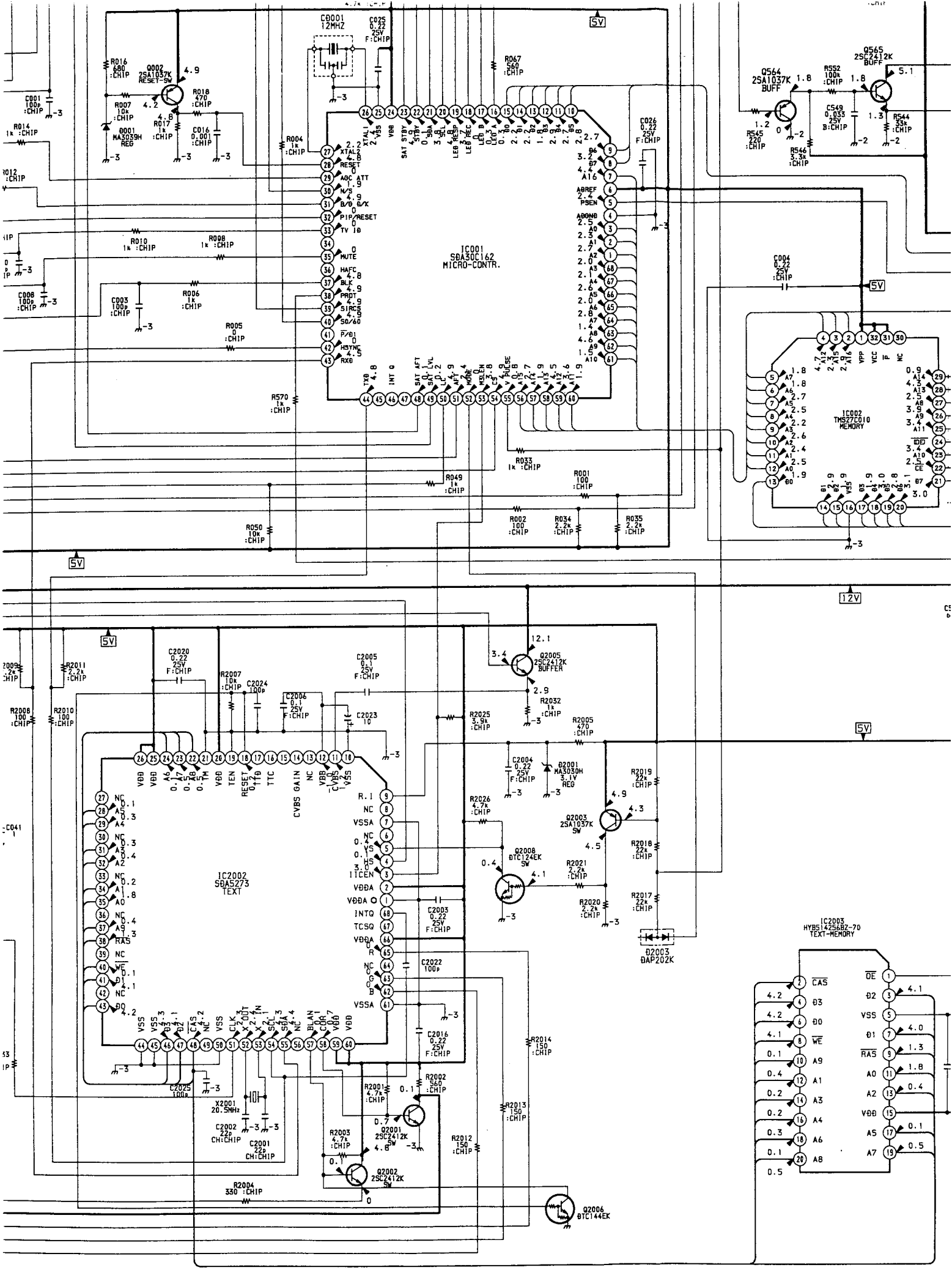

ACC 1
33
35
37
38
19

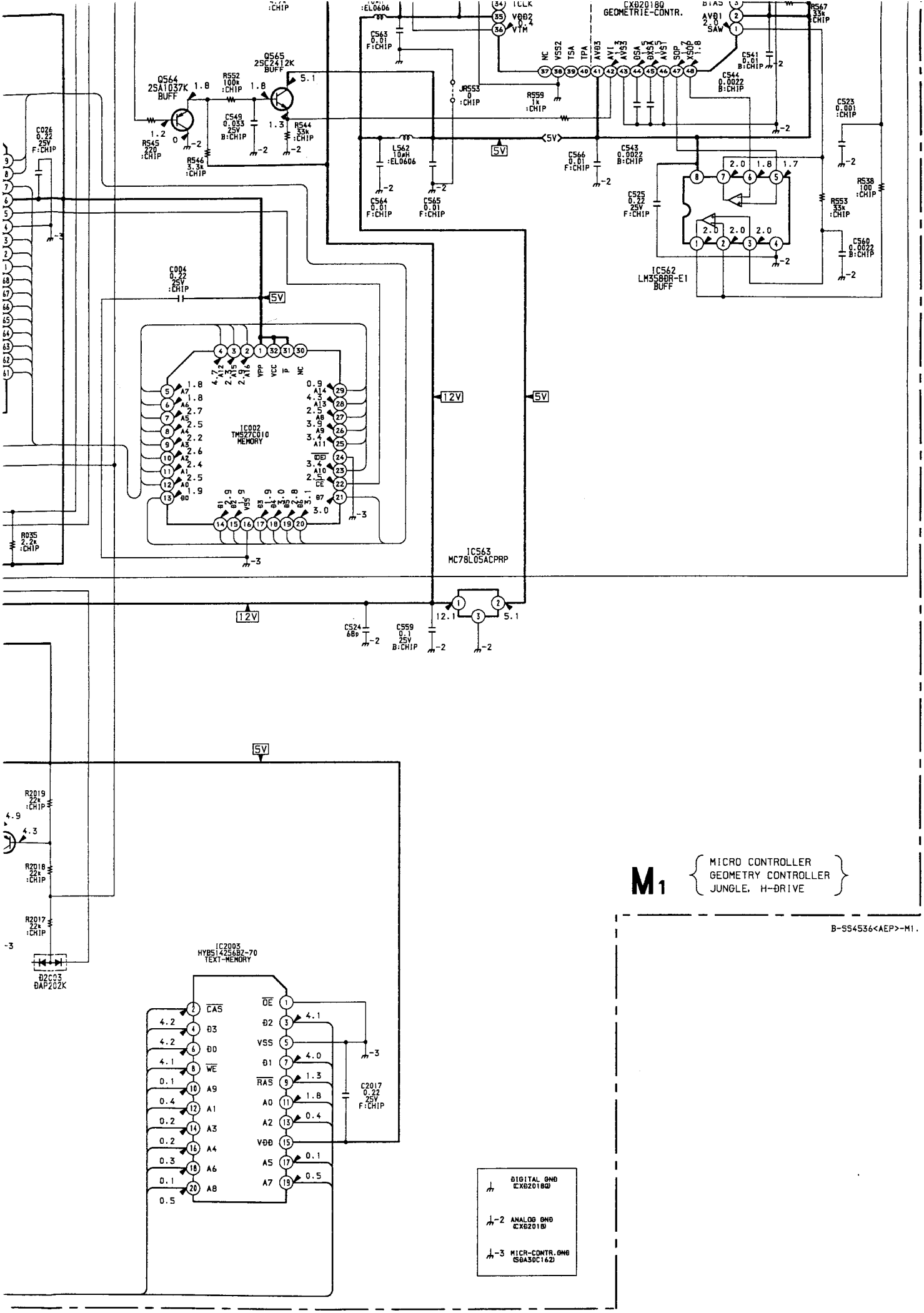

ACC 1
E
F
ALU
ACC 2
ACC 1
S3
DAC
LPF
33
35
37
38
19
36
20
21
23
24
25
40


ACC 2
S3
12
11
10
23
24
25
40


E
F
G
H
I
J
K
L
M
N
O
P
TO A BOARD
CN0113
SDA 30
V S/S 11
SYNC IN 31
FH 10
VIDEO 32
VLC 9
TV5 33
H PULSE 8
LC 34
H SYNC 7
5V STBY 35
TXT BLK 6
JGND 36
COR 5
J5V 37
R 4
12V 38
G 3
JGND 39
B 2
SSCP 40
STBY 1
CN1413
40P
WHT
:BTOB-P
12V
C528
33p
C2010
0.1
25V
:CHIP


IC2001
MC78L05ACPRP
5V-REG
IC2004
S0A9085
SYSTEM-CLOCK
IC2002
S0A5273
TEXT
Q0001
MA3039H
REG
Q0002
2SA1037K
RESET-5V
Q0003
MA3047L
REG
CB001
12MHZ
X2001
20.5MHz
L001
100uH :EL0606
L2001
82uH
:EL0606
12V
5V
SYNC IN
VIDEO
TV5
PULSE
LC
SYNC
5V STBY
BLK
JGND
JSV
12V
JGND
SSCP
N1413
40P
WHT
3TOB-P


IC001
SDA30C162
MICRO-CONTR.
IC002
TMS27C010
MEMORY
IC2002
SDA5273
TEXT
IC2003
HYB514256BZ-70
TEXT-MEMORY
Q0001
12MHZ
Q0002
2SA1037K
RESET-SW
Q0001
MA3039H
REG
Q564
2SA1037K
BUFF
Q565
2SC2412K
BUFF
Q2005
2SC2412K
BUFFER
Q2001
MA3030H
5.1V
REG
Q2003
2SA1037K
SW
Q2008
DTC124EK
SW
Q2001
2SC2412K
SW
Q2002
2SC2412K
SW
Q2003
DAP202K
Q2006
DTC144EK
X2001
20.5MHz
5V
12V



M1 { MICRO CONTROLLER
GEOMETRY CONTROLLER
JUNGLE, H-DRIVE }

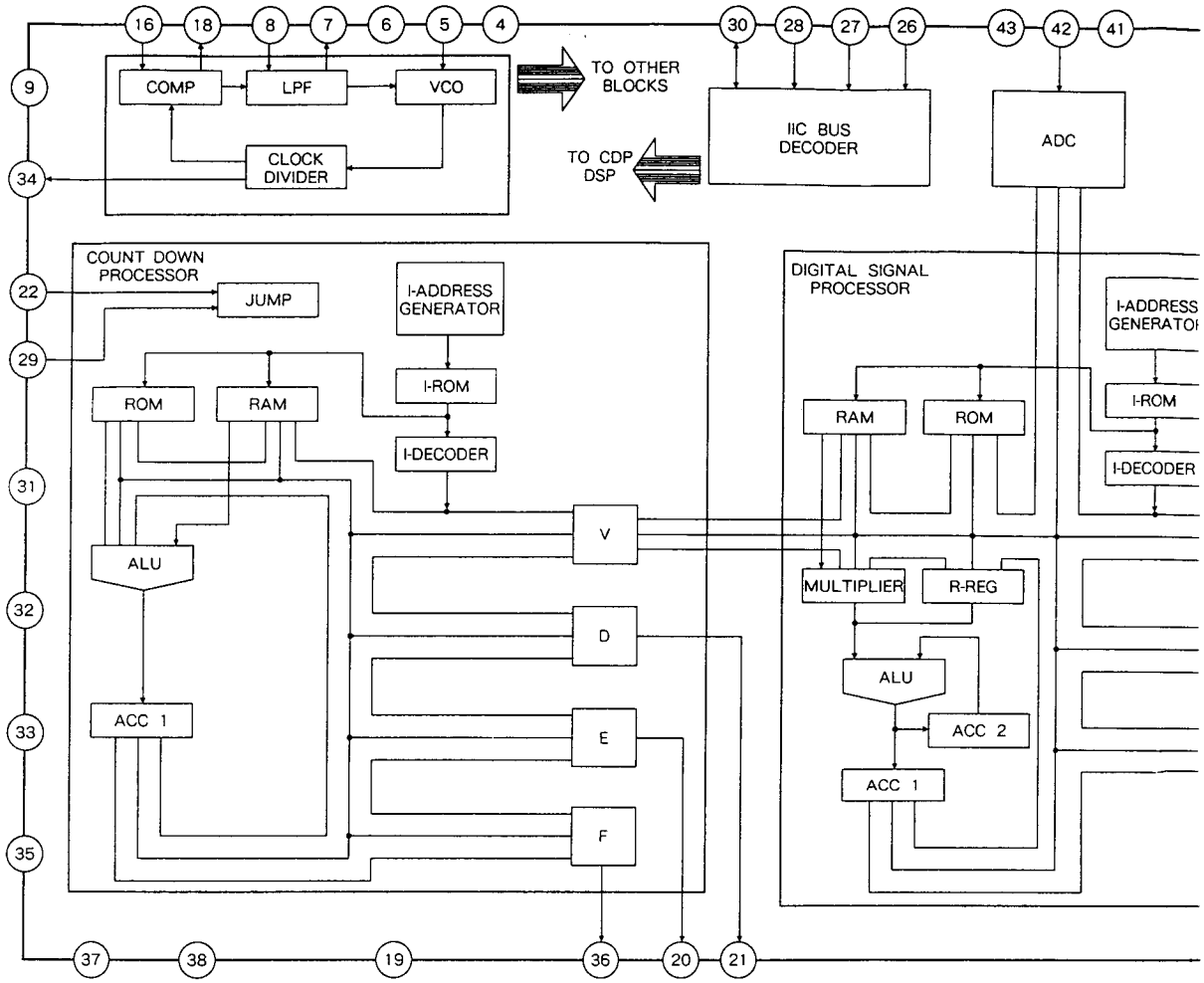
B-SS4536<AEP>-M1.

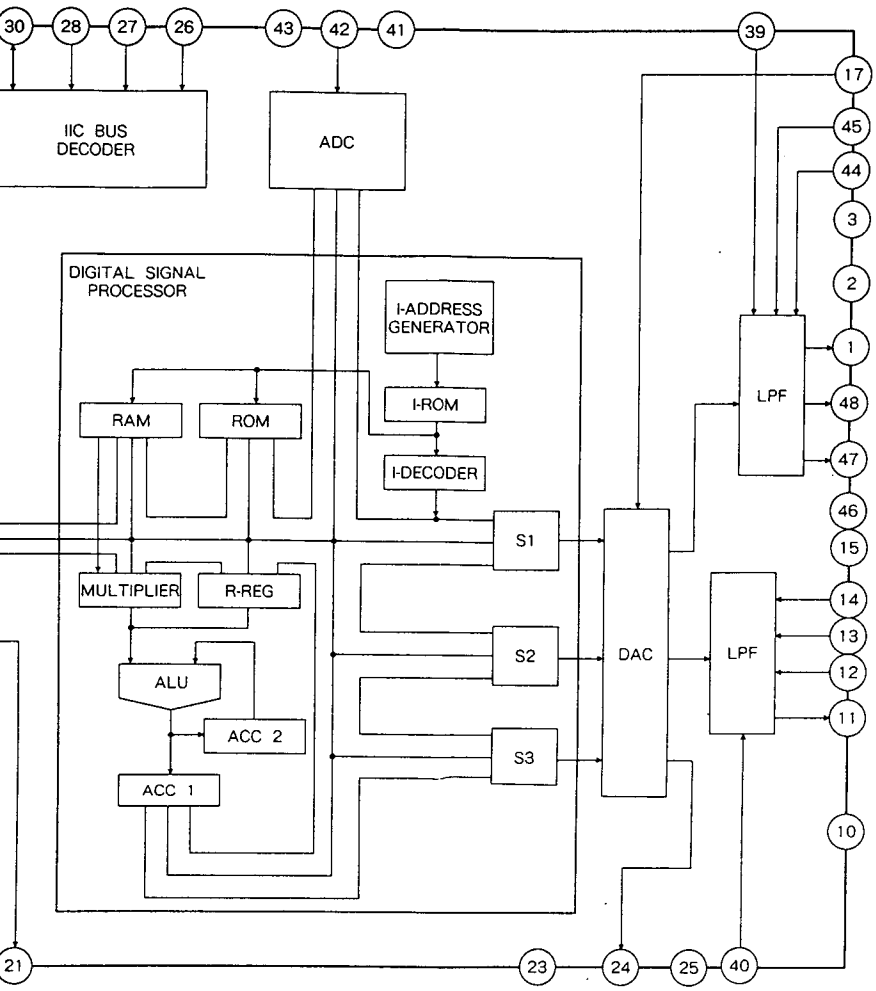
DIGITAL GND (CX02018Q)

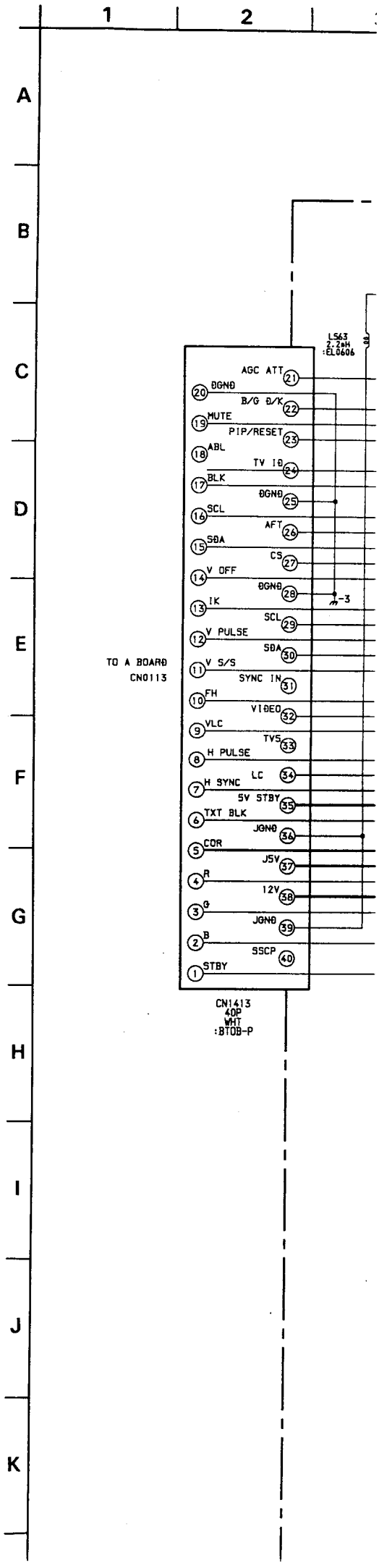
-2 ANALOG GND (CX02018)

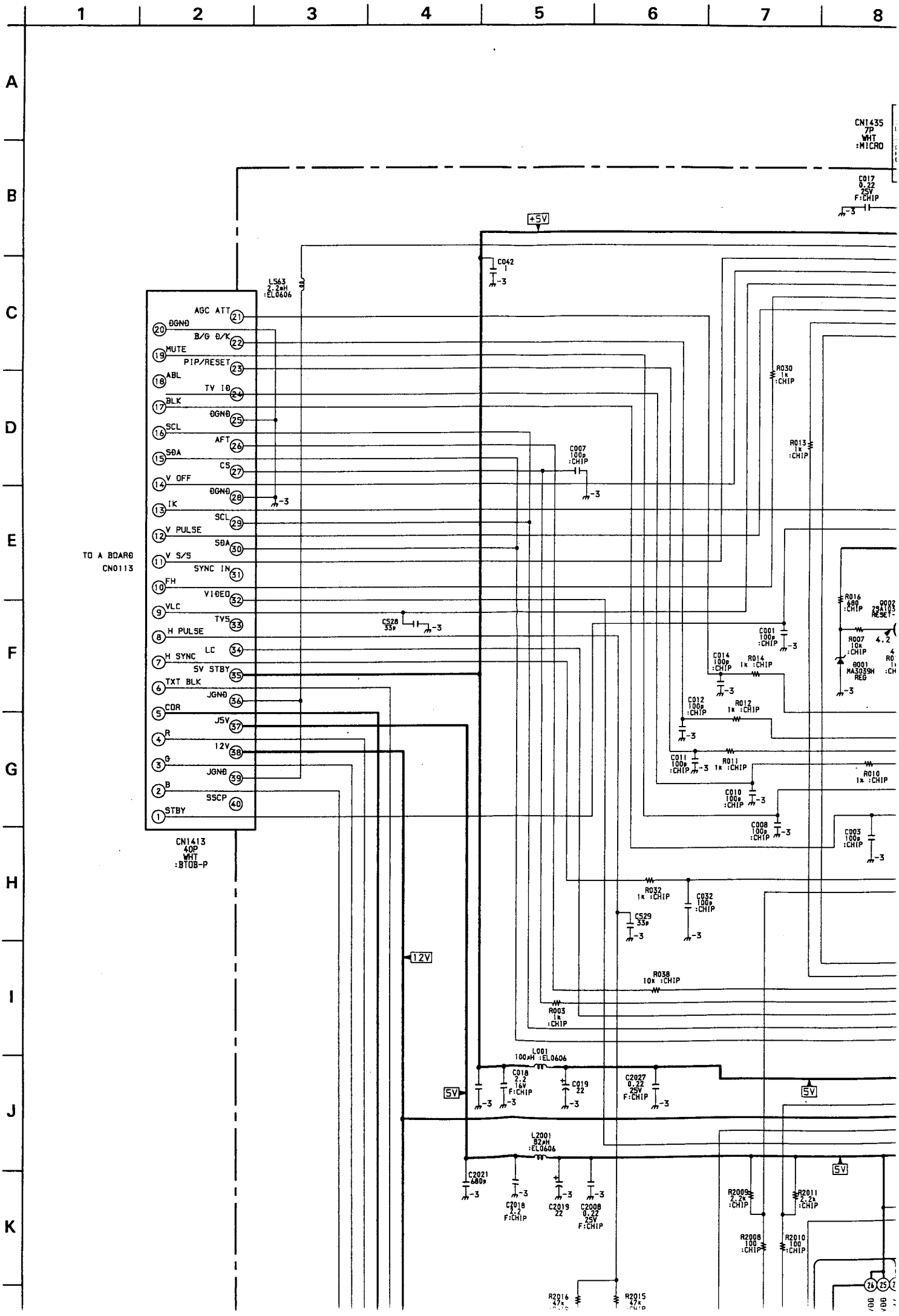
-3 MICR-CONTR.GND (S0A30C162)

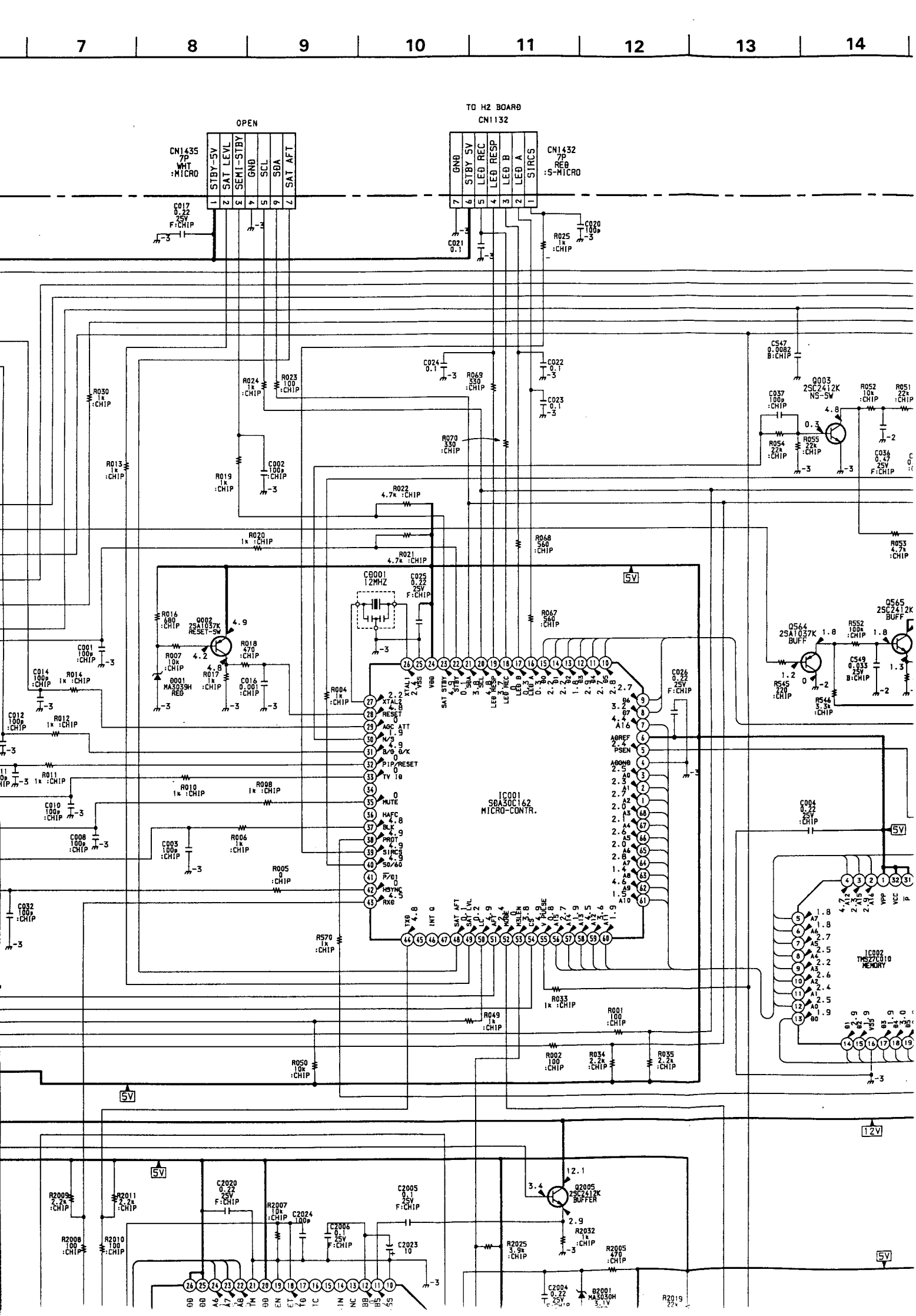
• M1 BOARD IC561 CXD2018Q

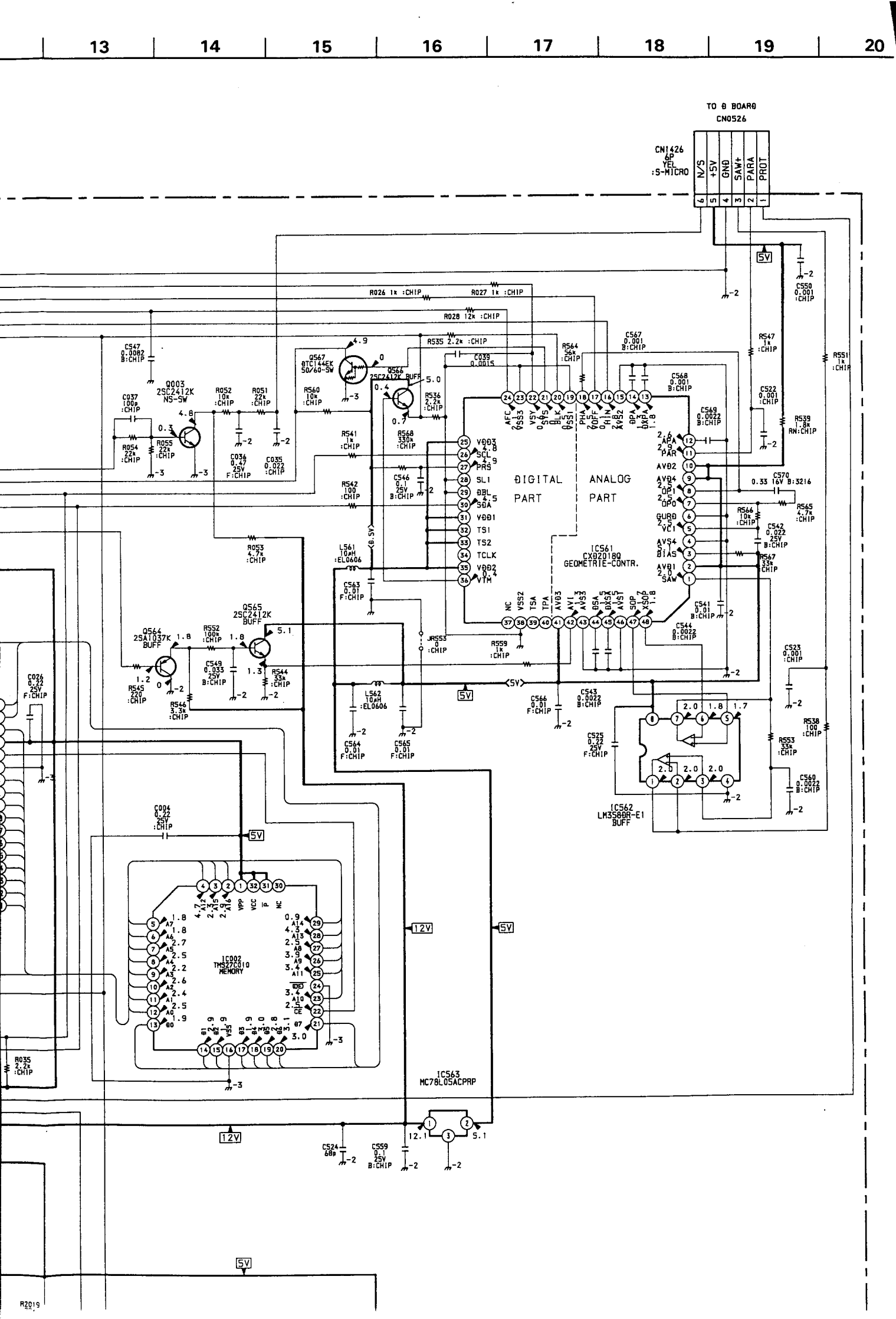



30
28
27
26
43
42
41
39
17
45
44
3
2
1
48
47
46
15
14
13
12
11
10
IIC BUS DECODER
ADC
DIGITAL SIGNAL PROCESSOR
I-ADDRESS GENERATOR
I-ROM
I-DECODER
RAM
ROM
MULTIPLIER
R-REG
ALU
ACC 2
ACC 1
S1
S2
S3
DAC
LPF
LPF
21
23
24
25
40


1
2
A
B
C
D
E
F
G
H
I
J
K
TO A BOARD CN0113
LS43 2.2mH :EL0606
AGC ATT 21
GND 20
B/G D/K 22
MUTE 19
PIP/RESET 23
ABL 18
TV IN 24
BLK 17
GND 25
SCL 16
AFT 26
SDA 15
CS 27
V OFF 14
GND 28
IK 13
SCL 29
V PULSE 12
SDA 30
V S/S 11
SYNC IN 31
FH 10
VIDEO 32
VLC 9
TVS 33
H PULSE 8
LC 34
H SYNC 7
5V STBY 35
TXT BLK 6
JGND 36
COR 5
J5V 37
R 4
12V 38
G 3
JGND 39
B 2
SSCP 40
STBY 1
CN1413 40P WHT :BTOB-P

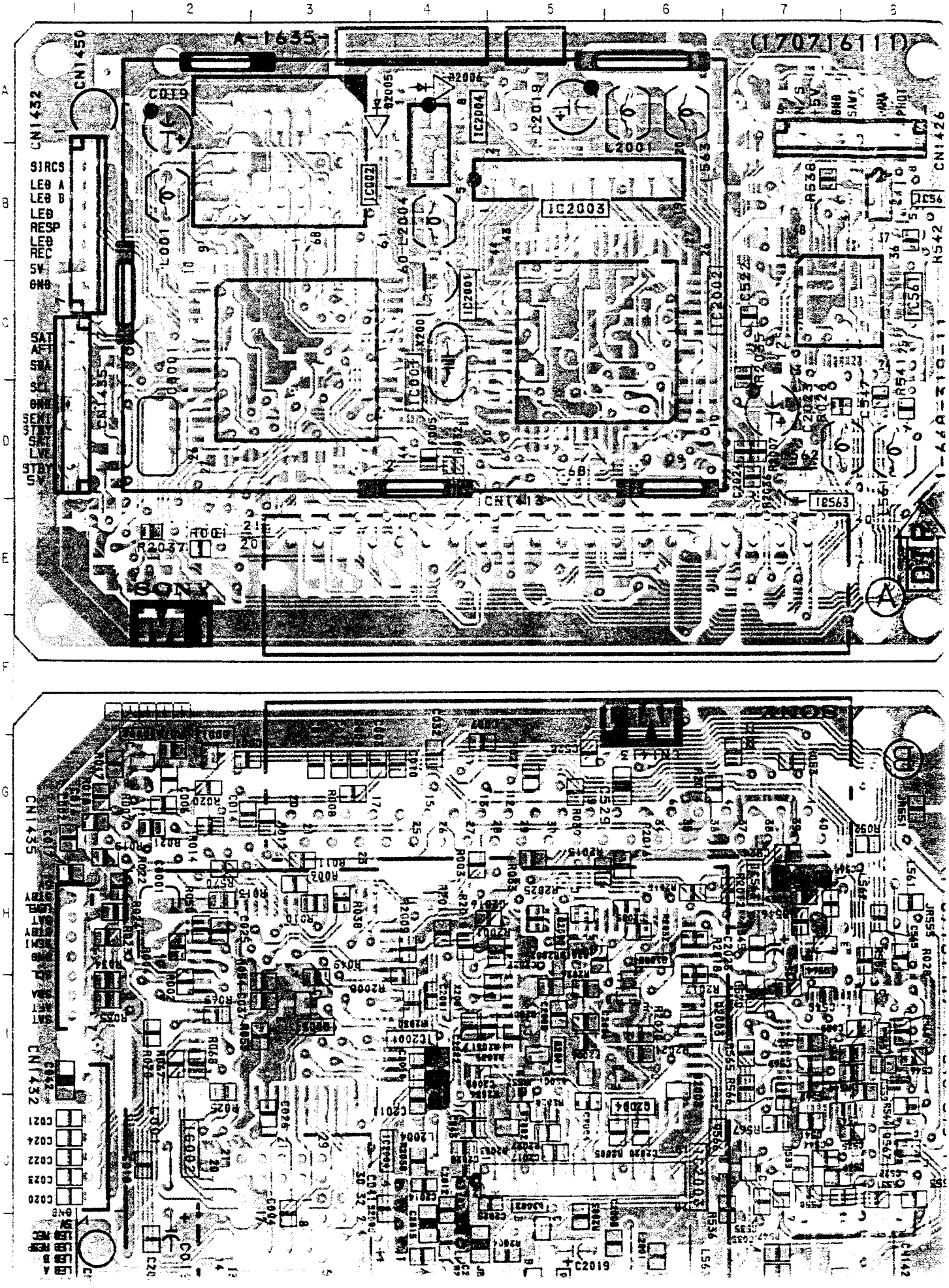

1
2
3
4
5
6
7
8
A
B
C
D
E
F
G
H
I
J
K
CN1435
7P
WHT
:MICRO
C017
0.22
25V
F:CHIP
+5V
C042
1
L563
2.2mH
:EL0606
AGC ATT
ØGNØ
B/G Ø/K
MUTE
PIP/RESET
ABL
TV IØ
BLK
ØGNØ
SCL
AFT
SØA
CS
V OFF
ØGNØ
IK
SCL
V PULSE
SØA
V S/S
SYNC IN
FH
VIØEO
VLC
TV5
H PULSE
LC
H SYNC
5V STBY
TXT BLK
JGNØ
COR
J5V
R
12V
G
JGNØ
B
SSCP
STBY
TO A BOARØ
CNØ113
CN1413
40P
WHT
:BTOB-P
C007
100p
:CHIP
C528
33p
R030
1k
:CHIP
R013
1k
:CHIP
R016
680
:CHIP
R007
10k
:CHIP
Ø001
MA3039H
REG
C001
100p
:CHIP
C014
100p
:CHIP
R014
1k :CHIP
C012
100p
:CHIP
R012
1k :CHIP
C011
100p
:CHIP
R011
1k :CHIP
R010
1k :CHIP
C010
100p
:CHIP
C008
100p
:CHIP
C003
100p
:CHIP
R032
1k :CHIP
C032
100p
:CHIP
C529
33p
R038
10k :CHIP
R003
1k
:CHIP
12V
L001
100μH :EL0606
C018
2.2
16V
F:CHIP
C019
22
5V
C2027
0.22
25V
F:CHIP
L2001
82μH
:EL0606
C2021
680p
C2018
2.2
F:CHIP
C2019
22
C2008
0.22
25V
F:CHIP
R2009
2.2k
:CHIP
R2011
2.2k
:CHIP
R2008
100
:CHIP
R2010
100
:CHIP
R2016
47k
R2015
47k

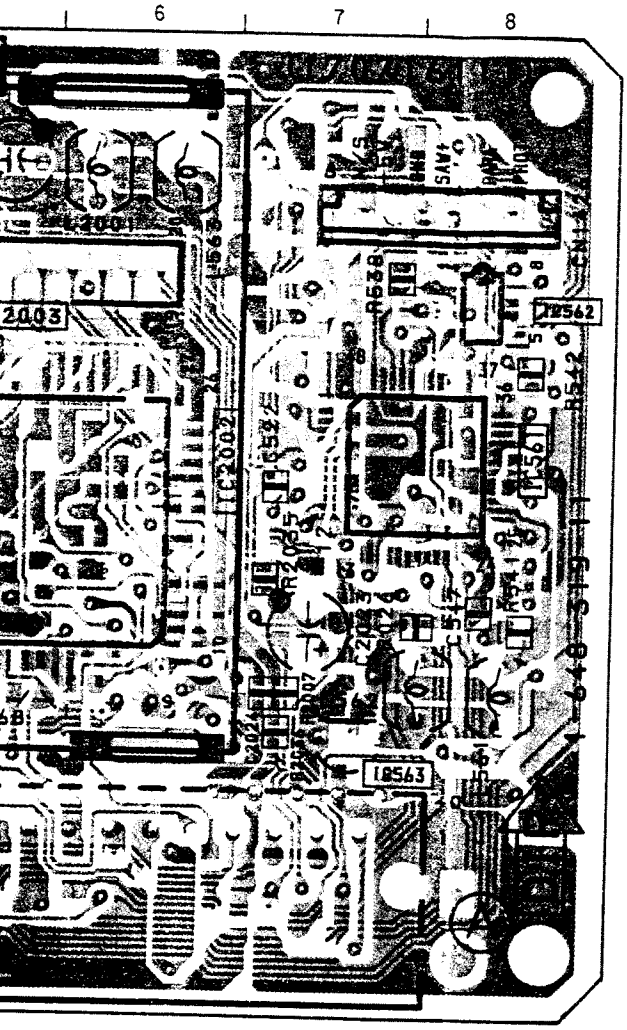

7
8
9
10
11
12
13
14
OPEN
TO H2 BOARD
CN1132
CN1435
7P
WHT
:MICRO
STBY-5V
SAT LEVL
SEMI-STBY
GND
SCL
SDA
SAT AFT
CN1432
7P
RED
:S-MICRO
GND
STBY 5V
LED REC
LED RESP
LED B
LED A
SIRCS
IC001
S8A30C162
MICRO-CONTR.
C0001
12MHZ
IC002
TMS27C010
MEMORY
Q003
2SC2412K
NS-SW
Q564
2SA1037K
BUFF
Q565
2SC2412K
BUFF
Q002
2SA1037K
RESET-SW
Q2005
2SC2412K
BUFFER
D001
MA3039H
REG
D2001
MA3030H
5V
12V

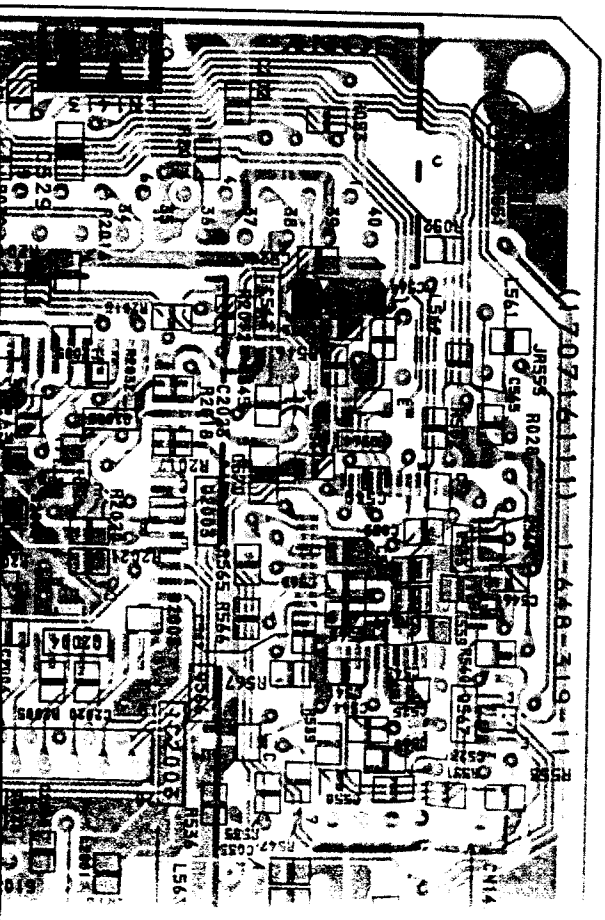

13
14
15
16
17
18
19
20
TO 8 BOARD
CN0526
CN1626
6P
YEL
:S-MICRO
N/S
+5V
GND
SAW+
PARA
PROT
DIGITAL PART
ANALOG PART
IC561
CX020180
GEOMETRIE-CONTR.
IC562
LM3580R-E1
BUFF
IC563
MC78L05ACPRP
IC002
TMS27C010
MEMORY
Q003
2SC2412K
NS-SW
Q564
2SA1037K
BUFF
Q565
2SC2412K
BUFF
Q566
2SC2412K
BUFF
Q567
BTC144EK
50/60-SW
5V
12V
R026 1k :CHIP
R027 1k :CHIP
R028 12k :CHIP
R535 2.2k :CHIP
C039
0.0015
C547
0.0082
B:CHIP
C550
0.001
:CHIP
C567
0.001
B:CHIP
C568
0.001
B:CHIP
C569
0.0022
B:CHIP
C570
0.33 16V B:3216
C522
0.001
:CHIP
C523
0.001
:CHIP
C542
0.022
25V
B:CHIP
C541
0.01
B:CHIP
C544
0.0022
B:CHIP
C543
0.0022
B:CHIP
C566
0.01
F:CHIP
C563
0.01
F:CHIP
C564
0.01
F:CHIP
C565
0.01
F:CHIP
C525
0.22
25V
F:CHIP
C560
0.0022
B:CHIP
C004
0.22
25V
:CHIP
C026
0.22
25V
F:CHIP
C035
0.022
:CHIP
C036
0.47
25V
F:CHIP
C037
100p
:CHIP
C524
68p
C559
0.1
25V
B:CHIP
C546
0.1
25V
B:CHIP
C549
0.033
25V
B:CHIP
R051
22k
:CHIP
R052
10k
:CHIP
R053
4.7k
:CHIP
R054
22k
:CHIP
R055
22k
:CHIP
R536
2.2k
:CHIP
R539
1.8k
RN:CHIP
R541
1k
:CHIP
R542
100
:CHIP
R544
33k
:CHIP
R545
220
:CHIP
R546
3.3k
:CHIP
R547
1k
:CHIP
R551
1k
:CHIP
R552
100k
:CHIP
R553
33k
:CHIP
R559
1k
:CHIP
R560
10k
:CHIP
R564
56k
:CHIP
R565
4.7k
:CHIP
R566
10k
:CHIP
R567
33k
:CHIP
R568
330k
:CHIP
R035
2.2k
:CHIP
R538
100
:CHIP
L561
10uH
:EL0606
L562
10uH
:EL0606
JR553
:CHIP
R2019

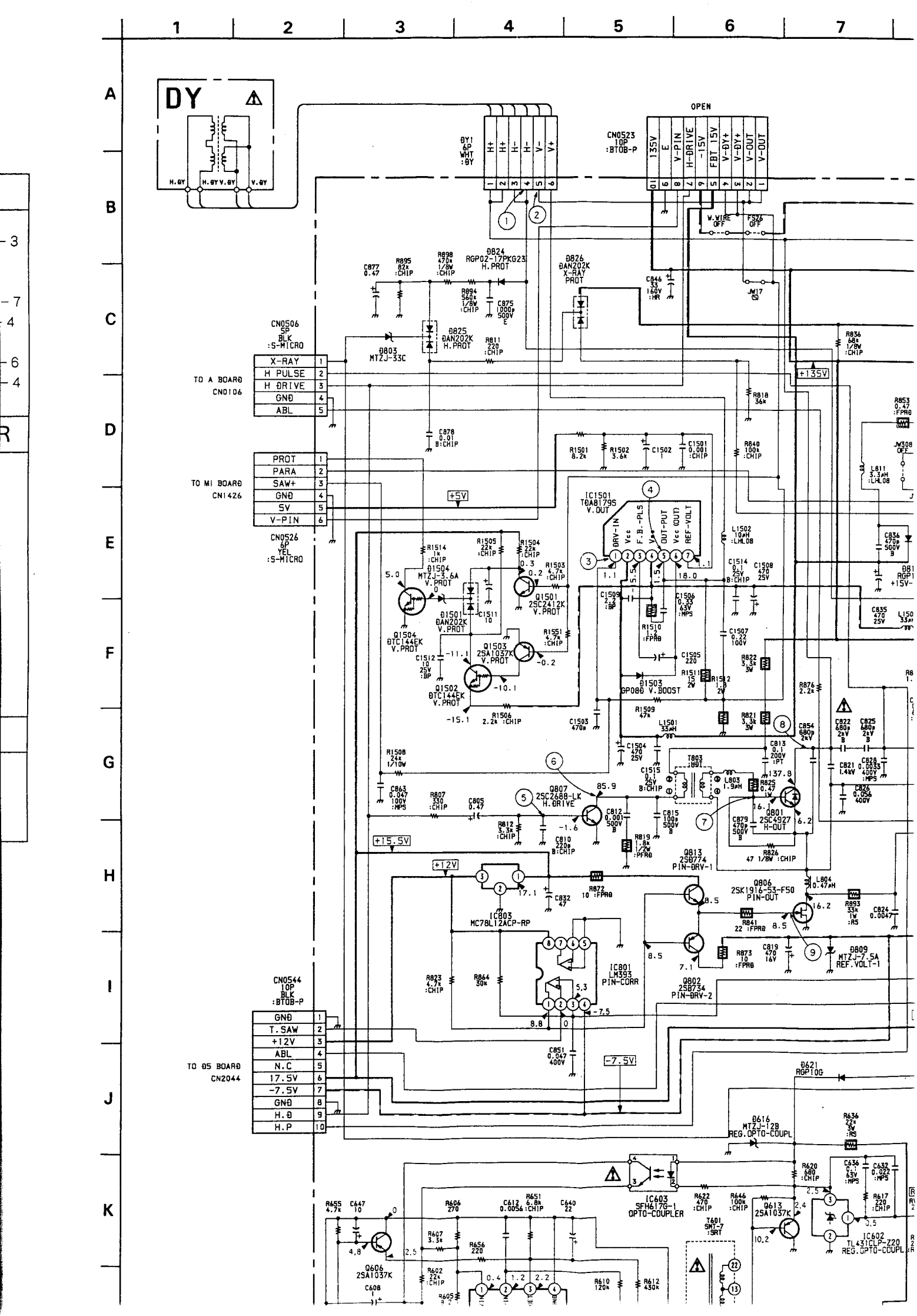
M1 [MICRO CONTROLLER, GEOMETRY CONTROLLER, JUNGLE, H – DRIVE] **D** [H/V OUT, PIN OUT, POWER SUPPLY]

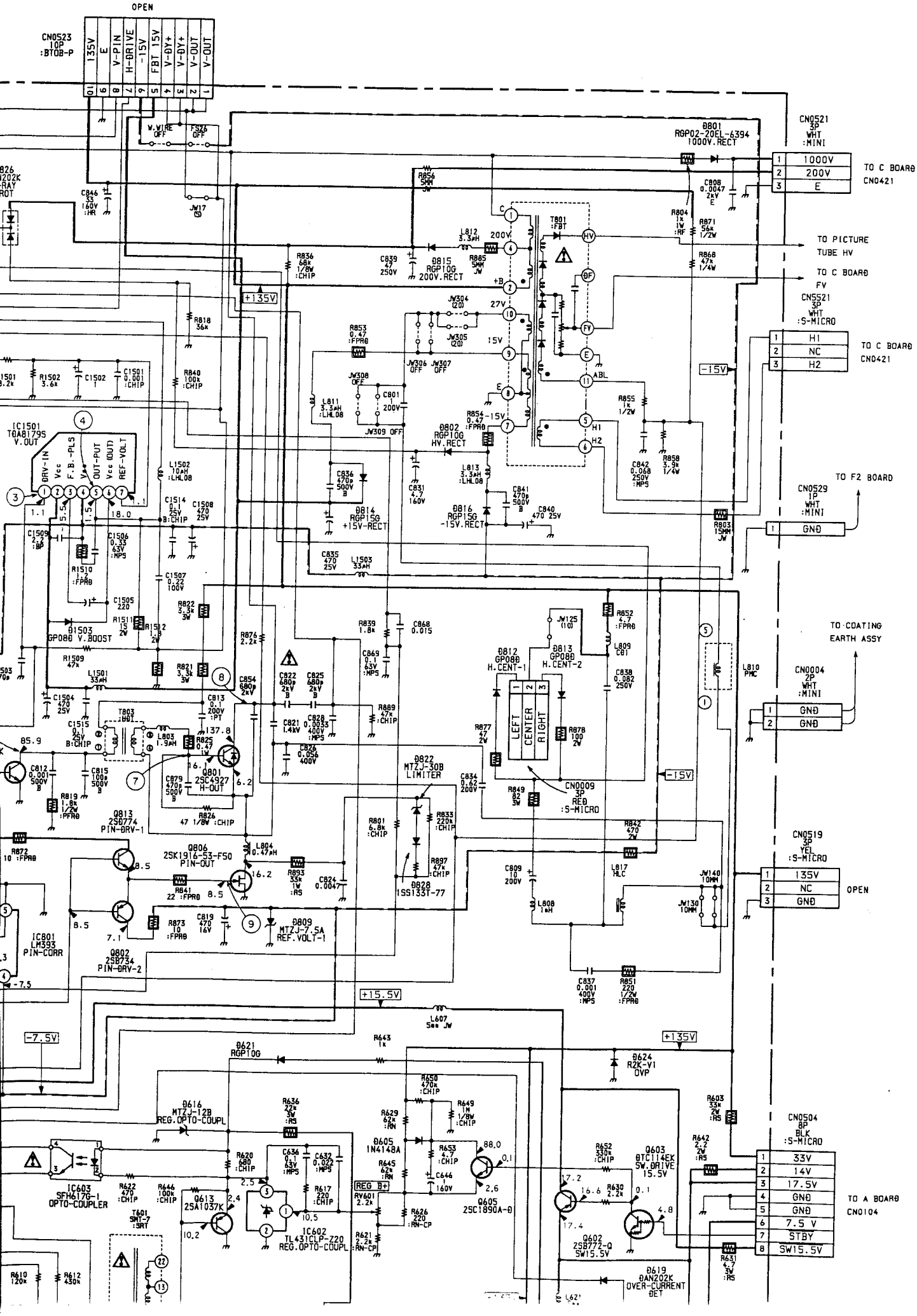
– M1 BOARD –

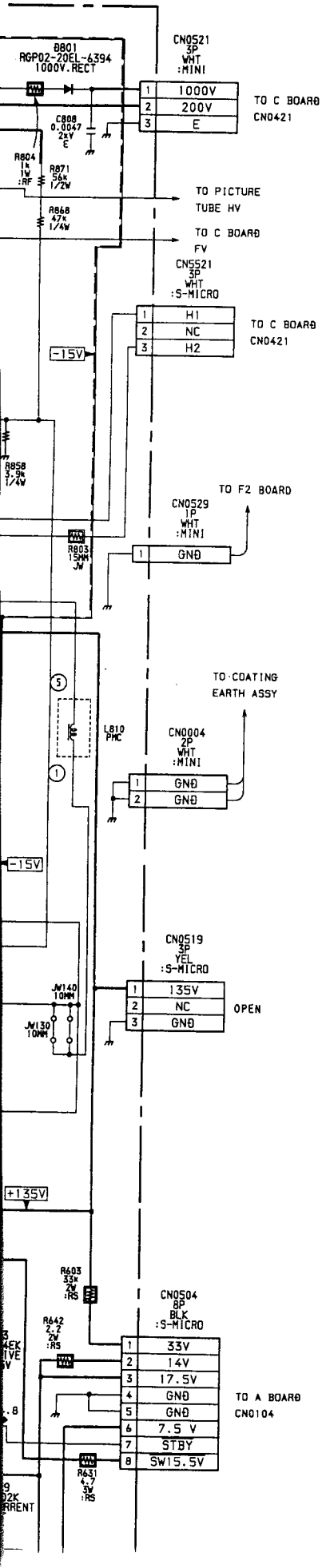



6
7
8
IC2001
IC2003
IC562
IC563
R538
R542
R561
SAW1
CN14

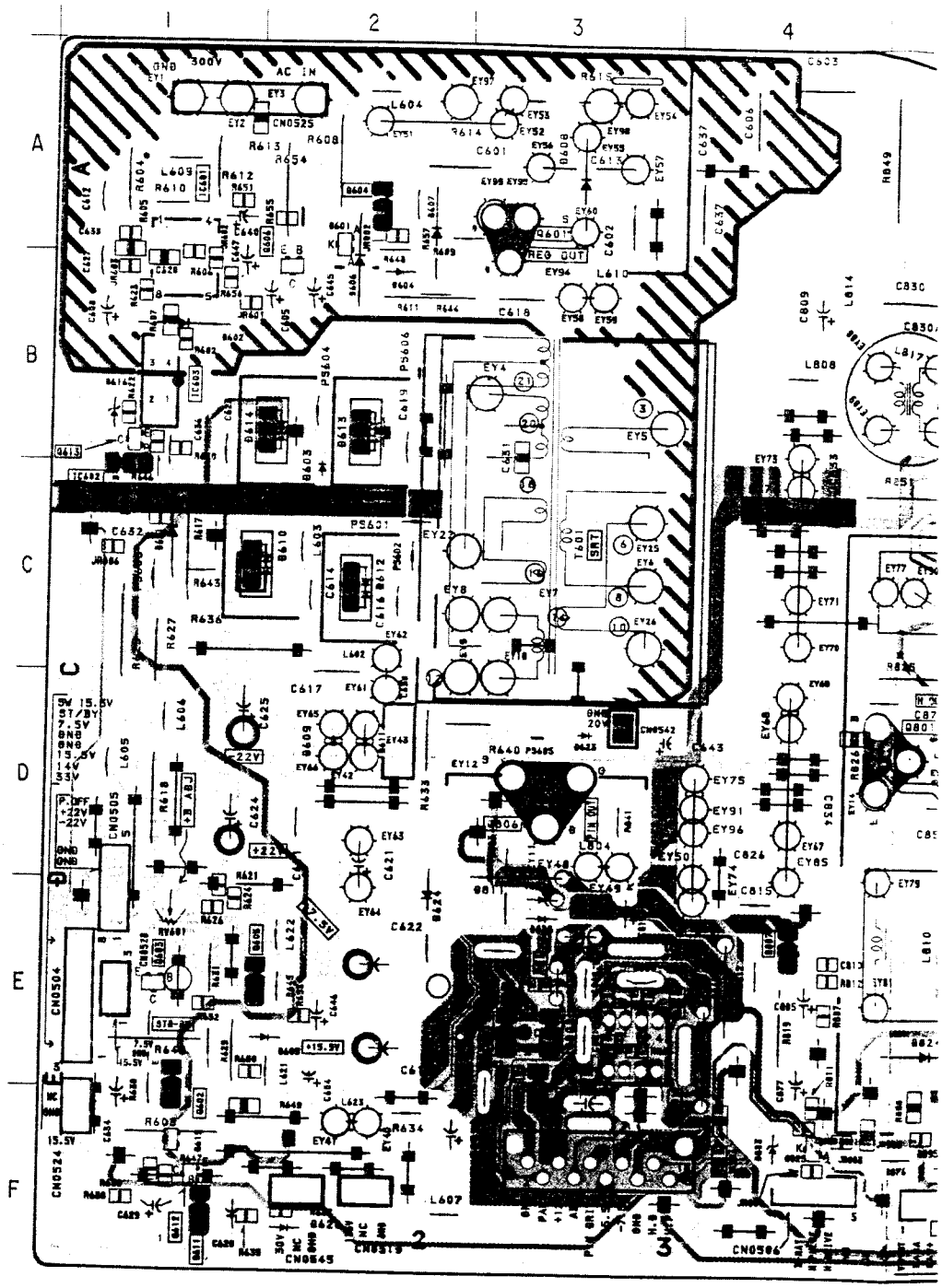

IC
R567
R568
R569
R570
R571
R572
R573
R574
R575
R576
R577
R578
R579
R580
R581
R582
R583
R584
R585
R586
R587
R588
R589
R590
R591
R592
R593
R594
R595
R596
R597
R598
R599
R600
R601
R602
R603
R604
R605
R606


DY
H.ΘY
H.ΘY V.ΘY
V.ΘY
ΘY1
6P
WHT
:ΘY
H+
H+
H-
H-
V-
V+
CN0523
10P
:BTOB-P
OPEN
135V
E
V-PIN
H-DRIVE
-15V
FBT 15V
V-ΘY+
V-ΘY+
V-OUT
V-OUT
W.WIRE
OFF
FS26
OFF
JW17
ON
CN0506
5P
BLK
:S-MICRO
X-RAY
H PULSE
H DRIVE
GNΘ
ABL
TO A BOARΘ
CNΘ106
PROT
PARA
SAW+
GNΘ
5V
V-PIN
TO MI BOARΘ
CN1426
CN0526
6P
YEL
:S-MICRO
ΘΘ3
MTZJ-33C
ΘΘ24
RGP02-17PKG23
H.PROT
ΘΘ25
ΘAN202K
H.PROT
ΘΘ26
ΘAN202K
X-RAY
PROT
+135V
+5V
+15.5V
+12V
-7.5V
IC1501
TΘA8179S
V.OUT
DRV-IN
Vcc
F.B.-PLS
Vref
OUT-PUT
Vcc (OUT)
REF-VOLT
Q1501
2SC2412K
V.PROT
Q1502
ΘTC144EK
V.PROT
Q1503
2SA1037K
V.PROT
Q1504
ΘTC144EK
V.PROT
ΘΘ1501
ΘAN202K
V.PROT
ΘΘ1503
GP08Θ V.BOOST
Q807
2SC2688-LK
H.DRIVE
Q801
2SC4927
H-OUT
Q813
2SΘ774
PIN-DRV-1
Q806
2SK1916-53-F50
PIN-OUT
Q802
2SΘ734
PIN-DRV-2
IC803
MC78L12ACP-RP
IC801
LM393
PIN-CORR
ΘΘ9
MTZJ-7.5A
REF.VOLT-1
ΘΘ21
RGP1ΘG
ΘΘ16
MTZJ-12B
REG.OPTO-COUPL
IC603
SFH617G-1
OPTO-COUPLER
IC602
TL431CLP-Z2Θ
REG.OPTO-COUPL
Q606
2SA1037K
Q613
2SA1037K
T601
SMT-7
:SRT
CN0544
1ΘP
BLK
:BTOB-P
GNΘ
T.SAW
+12V
ABL
N.C
17.5V
-7.5V
GNΘ
H.Θ
H.P
TO ΘS BOARΘ
CN2044


CN0523
10P
:BTOB-P
135V
E
V-PIN
H-DRIVE
-15V
FBT 15V
V-OUT
V-OUT
OPEN
W.WIRE OFF
FS26 OFF
JW17
D801
RGP02-20EL-6394
1000V.RECT
CN0521
3P
WHT
:MINI
1000V
200V
E
TO C BOARD
CN0421
R856
5MM
JW
C846
33
160V
:HR
C808
0.0047
2kV
E
R804
1k
1W
:RF
R871
56k
1/2W
T801
:FBT
L812
3.3uH
200V
D815
RGP10G
200V.RECT
R885
5MM
JW
C839
47
250V
R836
68k
1/8W
:CHIP
TO PICTURE
TUBE HV
R868
47k
1/4W
TO C BOARD
FV
+135V
JW304
(20)
27V
JW305
(20)
15V
R853
0.47
:FPRB
JW306 OFF
JW307 OFF
JW308
OFF
JW309 OFF
C801
1
200V
L811
3.3uH
:LHL08
R854
0.47
:FPRB
-15V
D802
RGP10G
HV.RECT
L813
3.3uH
:LHL08
C831
4.7
160V
D816
RGP15G
-15V.RECT
C840
470 25V
CN5521
3P
WHT
:S-MICRO
H1
NC
H2
TO C BOARD
CN0421
ABL
R855
1k
1/2W
C842
0.068
250V
:MPS
R858
3.9k
1/4W
-15V
TO F2 BOARD
CN0529
1P
WHT
:MINI
GND
R803
15MM
JW
C841
470p
500V
B
C834
470p
500V
B
D814
RGP15G
+15V-RECT
C835
470
25V
L1503
33uH
IC1501
T0A8179S
V.OUT
DRV-IN
Vcc
F.B.
-PLS
Vss
OUT-PUT
Vcc (OUT)
REF-VOLT
L1502
10uH
:LHL08
C1514
0.1
25V
B:CHIP
C1508
470
25V
C1509
2.2
:BP
C1506
0.33
63V
:MPS
R1510
1.2
:FPRB
C1507
0.22
100V
C1505
220
D1503
GP08D V.BOOST
R1511
15
2W
R1512
15
2W
R822
3.3k
3W
R876
2.2k
R839
1.8k
C868
0.015
C869
0.1
63V
:MPS
R1509
47k
L1501
33uH
C1504
470
25V
C813
0.1
200V
:PT
C822
680p
2kV
B
C825
680p
2kV
B
C854
680p
2kV
C821
1.42V
C828
0.0033
400V
:MPS
C826
0.056
400V
R889
47k
:CHIP
T803
:BBT
C1515
0.1
25V
B:CHIP
L803
1.9uH
R825
0.47
1W
Q801
2SC4927
H-OUT
C812
0.001
500V
B
C815
100p
500V
B
R819
1.8k
1/2W
:PFRB
R826
47 1/8W :CHIP
Q813
2SD774
PIN-DRV-1
D812
GP08D
H.CENT-1
D813
GP08D
H.CENT-2
JW125
(10)
R852
4.7
:FPRB
L809
C01
C838
0.082
250V
L810
PMC
TO COATING
EARTH ASSY
CN0004
2P
WHT
:MINI
GND
GND
LEFT
CENTER
RIGHT
R877
47
2W
R878
100
2W
CN0009
3P
RED
:S-MICRO
-15V
C834
0.62
200V
R849
82
3W
D822
MTZJ-30B
LIMITER
R801
6.8k
:CHIP
R833
220k
:CHIP
R897
47k
:CHIP
D828
1SS133T-77
R842
470
2W
CN0519
3P
YEL
:S-MICRO
135V
NC
GND
OPEN
C809
10
200V
L817
HLC
JW140
10MM
JW130
10MM
L808
1uH
C837
0.001
400V
:MPS
R851
220
1/2W
:FPRB
R872
10 :FPRB
Q806
2SK1914-53-F50
PIN-OUT
L804
0.47uH
R893
33k
1W
:RS
R841
22 :FPRB
C824
0.0047
C819
470
16V
R873
10
:FPRB
D809
MTZJ-7.5A
REF.VOLT-1
Q802
2SB734
PIN-DRV-2
IC801
LM393
PIN-CORR
-7.5V
+15.5V
L607
See JW
+135V
D621
RGP10G
R643
1k
D624
R2K-V1
OVP
R650
470k
:CHIP
R649
1M
1/8W
:CHIP
R636
22k
3W
:RS
D616
MTZJ-12B
REG.OPTO-COUPL
R629
62k
:RN
D605
1N4148A
R653
4.7
:CHIP
R645
62k
:RN
C644
1
160V
Q605
2SC1890A-Q
R603
33k
2W
:RS
CN0504
8P
BLK
:S-MICRO
33V
14V
17.5V
GND
GND
7.5 V
STBY
SW15.5V
TO A BOARD
CN0104
R642
2.2
2W
:RS
R652
330k
:CHIP
Q603
DTC114EK
SW.DRIVE
15.5V
R630
2.2k
Q602
2SB772-Q
SW15.5V
R631
4.7
3W
:RS
D619
DAN202K
OVER-CURRENT
DET
IC603
SFH617G-1
OPTO-COUPLER
R620
680
:CHIP
R622
470
:CHIP
R666
100k
:CHIP
T601
SMT-7
:SRT
Q613
2SA1037K
C636
0.1
63V
:MPS
C632
0.022
:MPS
R617
220
:CHIP
IC602
TL431CLP-Z20
REG.OPTO-COUPL
REG B+
RV601
2.2k
R626
220
:RN-CP
R621
2.2k
:RN-CP
R610
120k
R612
430k
L627



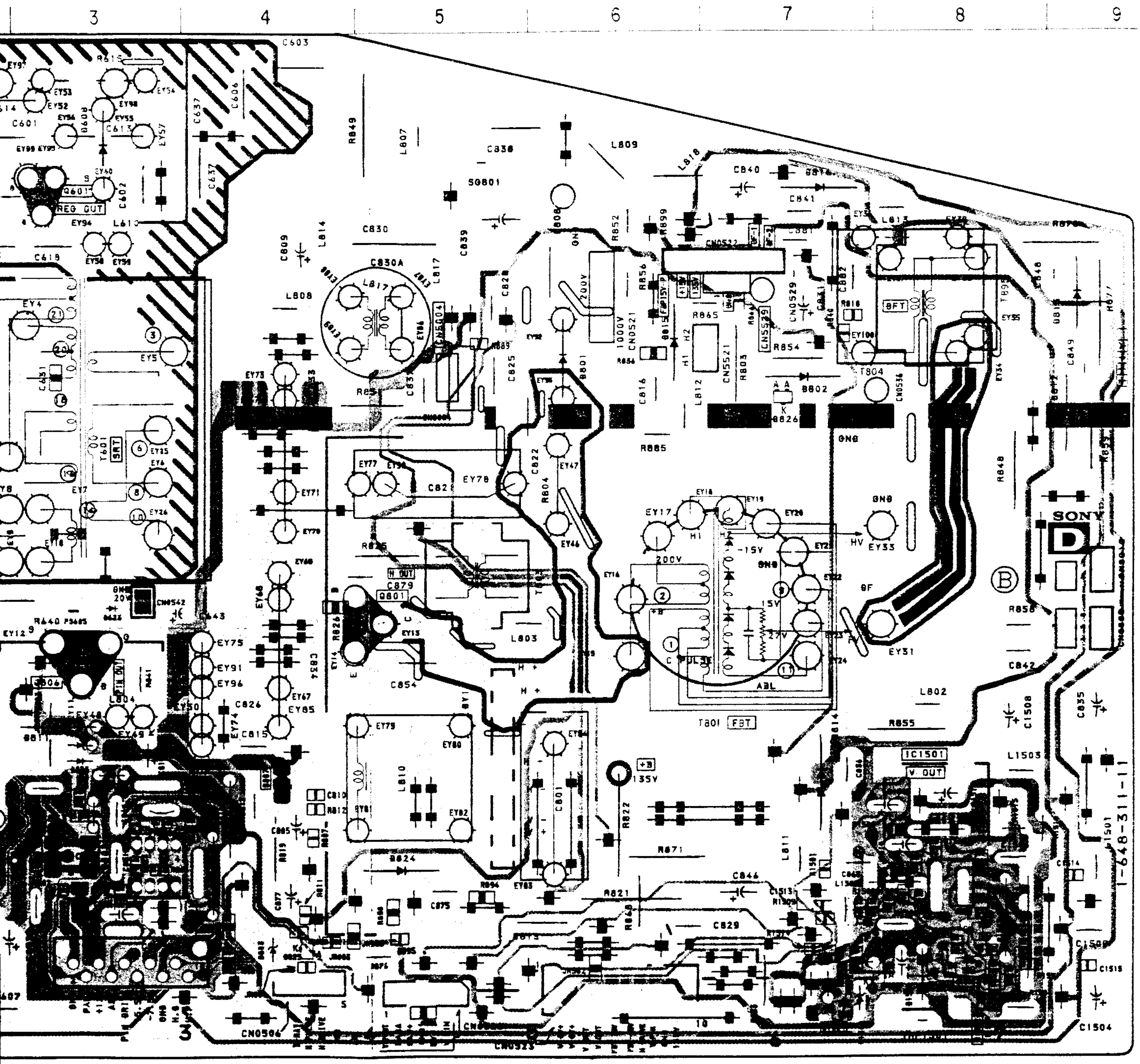
– D BOARD –



NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

Note :

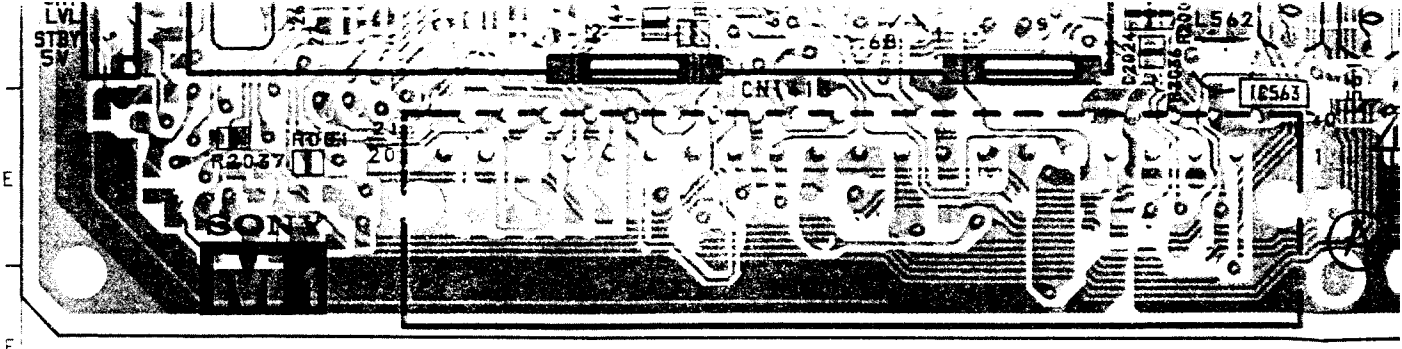
- : Pattern from the side which enables seeing.
- : Pattern of the rear side.

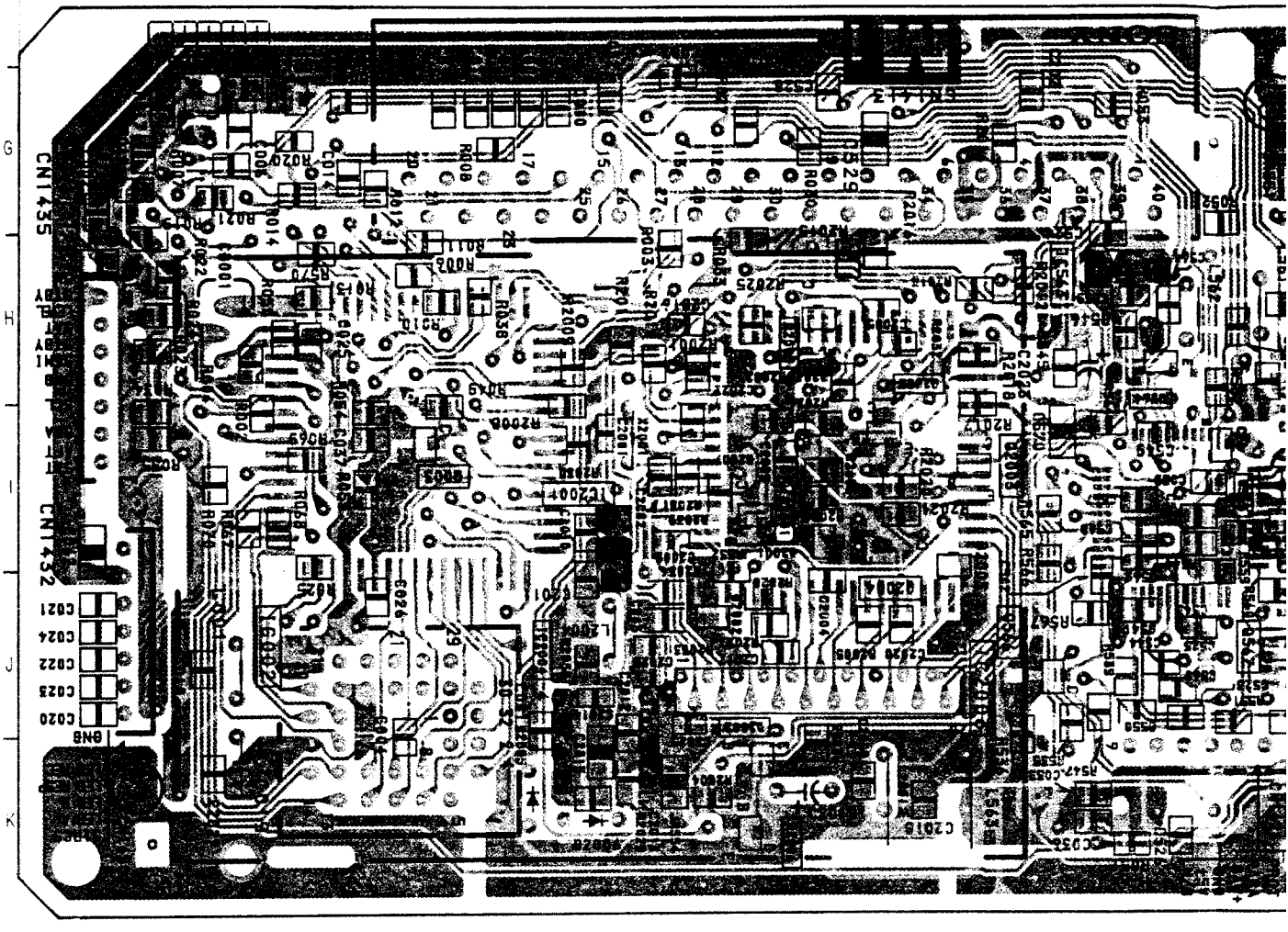


3
4
5
6
7
8
9
C603
R849
L807
C838
L809
SG801
C830
C830A
L817
L808
L814
C809
C839
C828
C825
L818
C840
C841
CN0522
L813
R878
C848
C849
R865
R854
CN5521
R803
L812
C816
D802
D826
T804
GND
R885
EY17
EY33
HV
-15V
15V
27V
200V
ABL
T801 FBT
PULSE
R848
R856
C842
L802
R855
L1503
C835
C1508
IC1501
V. OUT
135V
R822
R871
L811
C846
R821
C829
C1504
C1509
C1515
SONY
1-648-311-11
Q801
C879
H OUT
R826
L803
C854
L810
C801
C815
C826
C834
R824
C875
L804
R640
CN0542
Q601
REG OUT
C601
C602
C613
C618
C637
C606
T601
SRT
L610
CN0506
CN0523

ated as left contains high voltage of over
nust be paid to prevent an electric shock in
iring.

IC			
IC601	A – 1	D607	A – 2
IC602	C – 1	D608	A – 3
IC603	B – 1	D610	C – 2
IC801	E – 3	D611	D – 2
IC803	F – 3	D612	C – 2
IC1501	E – 8	D613	B – 2
		D614	B – 2
		D616	B – 1
		D619	F – 1
TRANSISTOR		D620	F – 2
		D621	C – 1
Q601	A – 3	D624	E – 2
Q602	F – 1	D801	B – 6
Q603	E – 1	D802	B – 7
Q604	A – 2	D803	F – 4

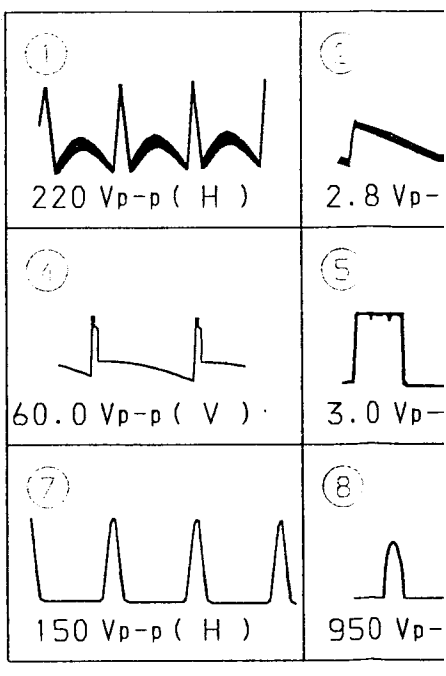


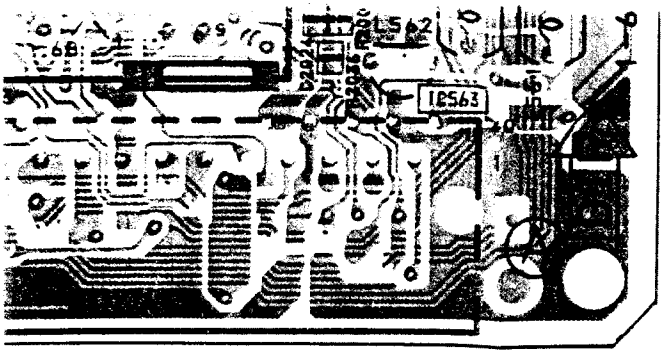


Note :

- : Pattern of the rear side.

• WAVEFORMS D BOARD

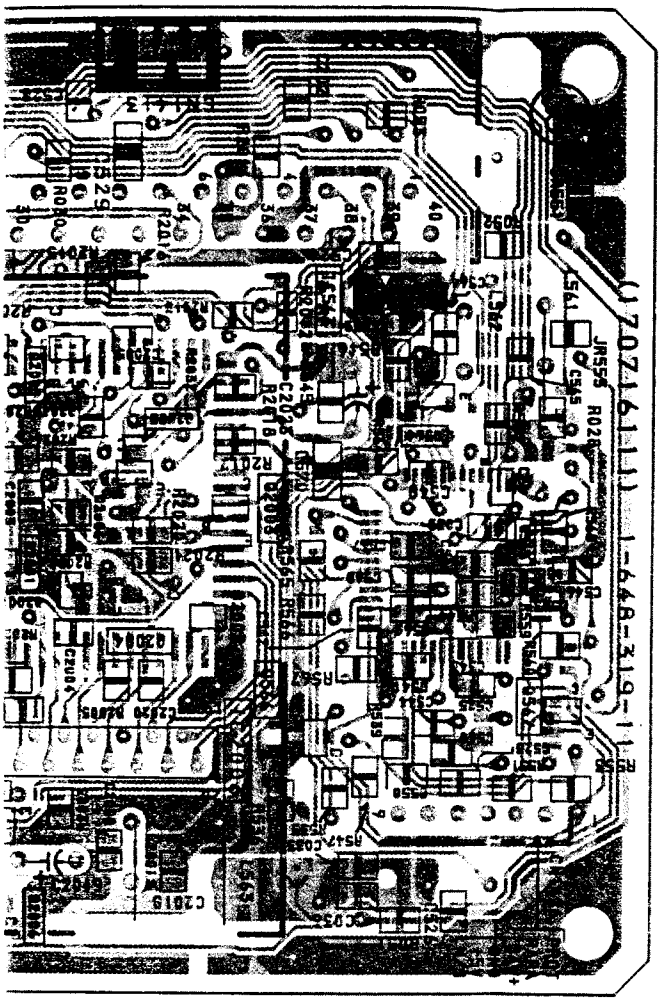




Q567	J – 8
Q2001	I – 5
Q2002	J – 5
Q2003	I – 6
Q2005	H – 5
Q2006	K – 5
Q2008	I – 6

DIODE

D001	G – 2
D2001	I – 5
D2002	J – 5
D2003	I – 6



F G H I J K L M N O

CN0544
10P
BLK
:BTOB-P

GND	1
T.SAW	2
+12V	3
ABL	4
N.C	5
17.5V	6
-7.5V	7
GND	8
H.D	9
H.P	10

TO 05 BOARD
CN2044

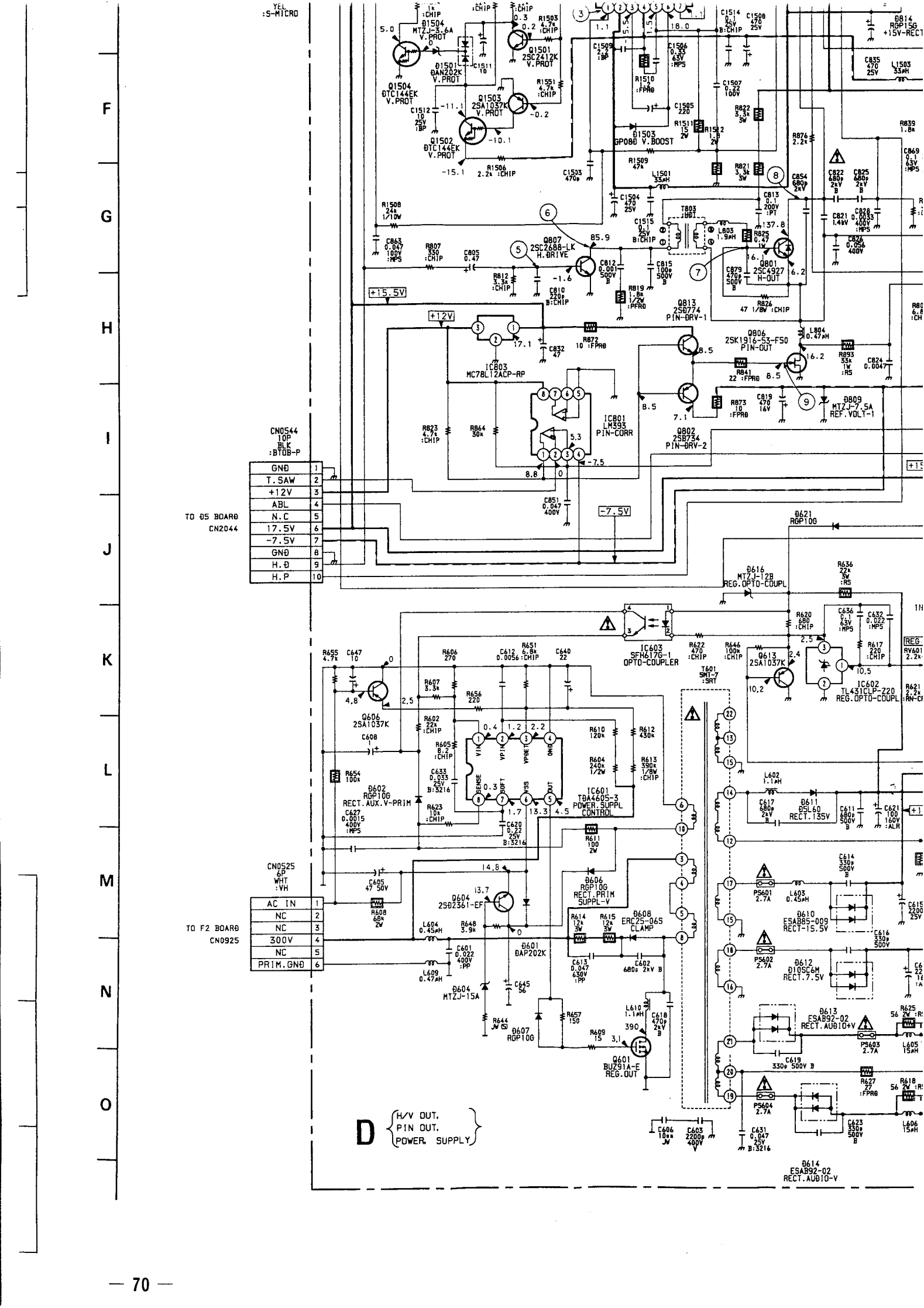
CN0525
6P
WHT
:VH

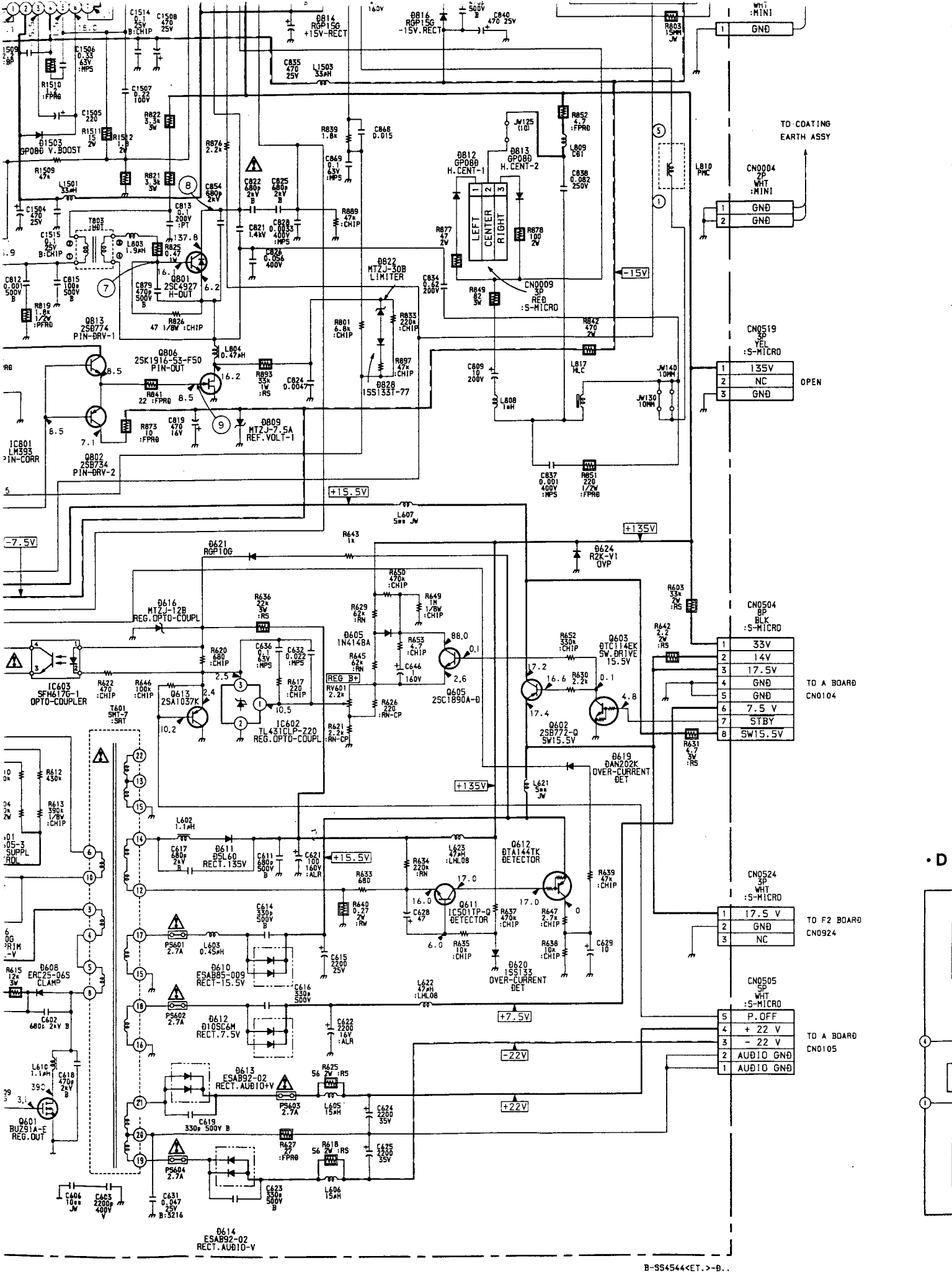
AC IN	1
NC	2
NC	3
300V	4
NC	5
PRIM.GND	6

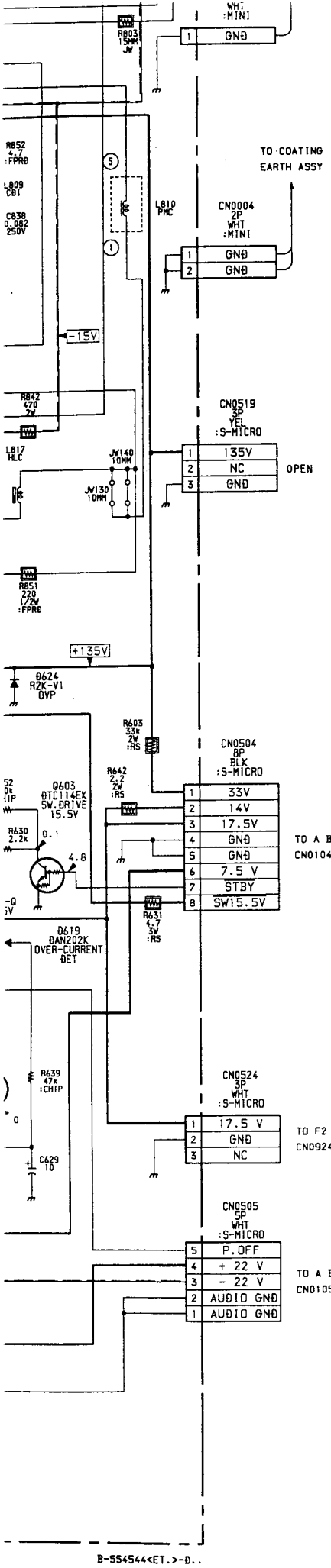
TO F2 BOARD
CN0925

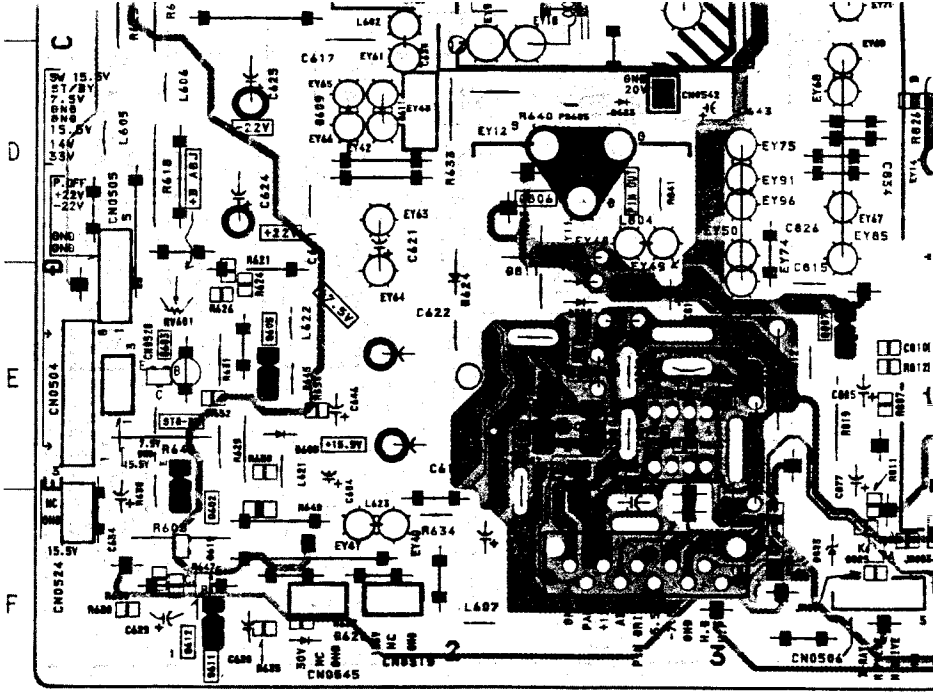
• WAVEFORMS D BOARD

① 220 Vp-p (H)	② 2.8 Vp-p (V)	③ 0.5 Vp-p (V)
④ 60.0 Vp-p (V)	⑤ 3.0 Vp-p (H)	⑥ 175 Vp-p (H)
⑦ 150 Vp-p (H)	⑧ 950 Vp-p (H)	⑨ 19.0 Vp-p (H)


CN0544
10P
BLK
:BTOB-P
GND 1
T.SAW 2
+12V 3
ABL 4
N.C 5
17.5V 6
-7.5V 7
GND 8
H.D 9
H.P 10
TO D5 BOARD
CN2044
CN0525
6P
WHT
:VH
AC IN 1
NC 2
NC 3
300V 4
NC 5
PRIM.GND 6
TO F2 BOARD
CN0925
+15.5V
+12V
-7.5V
D
H/V OUT.
PIN OUT.
POWER SUPPLY

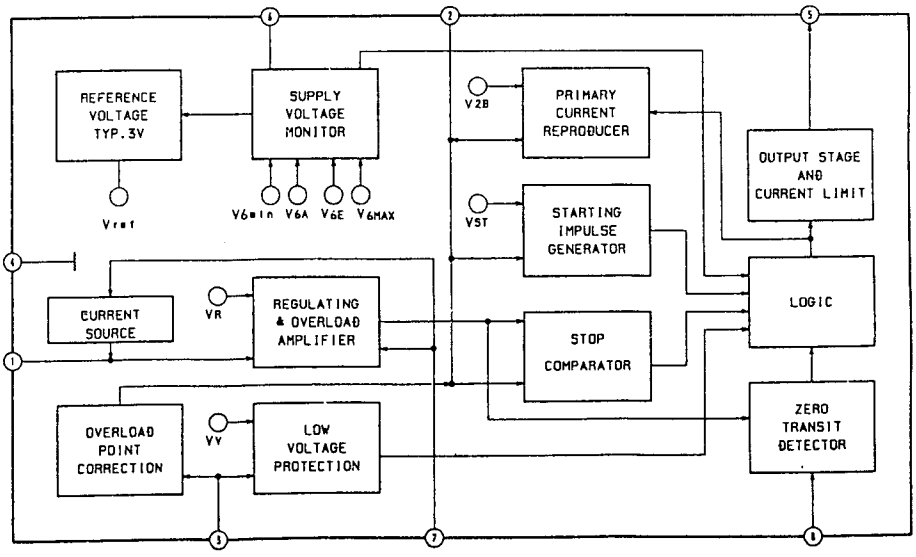

CN0004
2P
WHT
:MINI
GND
GND
TO COATING
EARTH ASSY
CN0009
3P
RED
:S-MICRO
CN0519
3P
YEL
:S-MICRO
135V
NC
GND
OPEN
CN0504
8P
BLK
:S-MICRO
33V
14V
17.5V
GND
GND
7.5 V
STBY
SW15.5V
TO A BOARD
CN0104
CN0524
3P
WHT
:S-MICRO
17.5 V
GND
NC
TO F2 BOARD
CN0924
CN0505
5P
WHT
:S-MICRO
P.OFF
+ 22 V
- 22 V
AUDIO GND
AUDIO GND
TO A BOARD
CN0105
+15.5V
+135V
-15V
-7.5V
+7.5V
-22V
+22V
LEFT
CENTER
RIGHT
Q801
2SC4927
H-OUT
Q802
2SB734
PIN-DRV-2
Q803
2SD774
PIN-DRV-1
Q806
2SK1916-53-F50
PIN-OUT
Q601
BUZ91A-E
REG.OUT
Q602
2SB772-Q
SW15.5V
Q603
DTC114EK
SW.DRIVE
15.5V
Q605
2SC1890A-D
Q612
DTA144TK
DETECTOR
Q613
2SA1037K
IC601
LM393
PIN-CORR
IC602
TL431CLP-Z20
REG.OPTO-COUPL
IC603
SFH617G-1
OPTO-COUPLER
D809
MTZJ-7.5A
REF.VOLT-1
D822
MTZJ-30B
LIMITER
D828
1SS133T-77
D812
GP08Q
H.CENT-1
D813
GP08Q
H.CENT-2
D1503
GP08Q
V.BOOST
D621
RGP10G
D624
R2K-V1
OVP
D616
MTZJ-12B
REG.OPTO-COUPL
D605
1N4148A
D611
D5L60
RECT.135V
D610
ESAB85-009
RECT-15.5V
D612
D10SC6M
RECT.7.5V
D613
ESAB92-02
RECT.AUDIO+V
D614
ESAB92-02
RECT.AUDIO-V
D619
DAN202K
OVER-CURRENT
DET
D620
1SS133
OVER-CURRENT
DET
D608
ERC25-06S
CLAMP
D816
RGP15G
-15V.RECT
D814
RGP15G
+15V-RECT
REG B+
B-SS4544<ET.>-B..

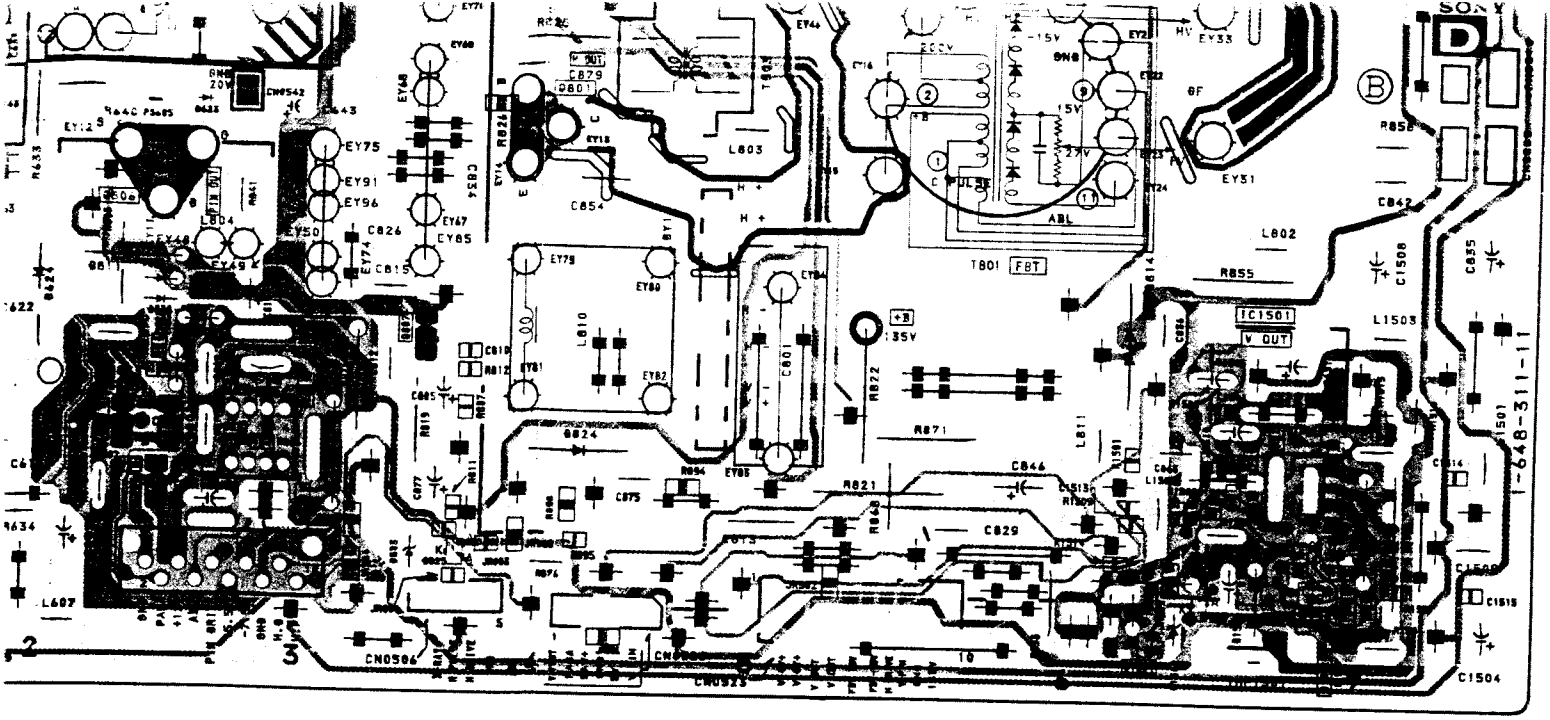




NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

• D BOARD IC601 TDA4605-3





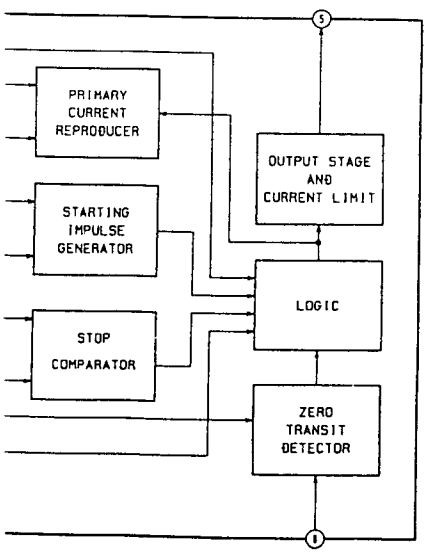
ndicated as left contains high voltage of over
re must be paid to prevent an electric shock in
repairing.

IC	
IC601	A – 1
IC602	C – 1
IC603	B – 1
IC801	E – 3
IC803	F – 3
IC1501	E – 8

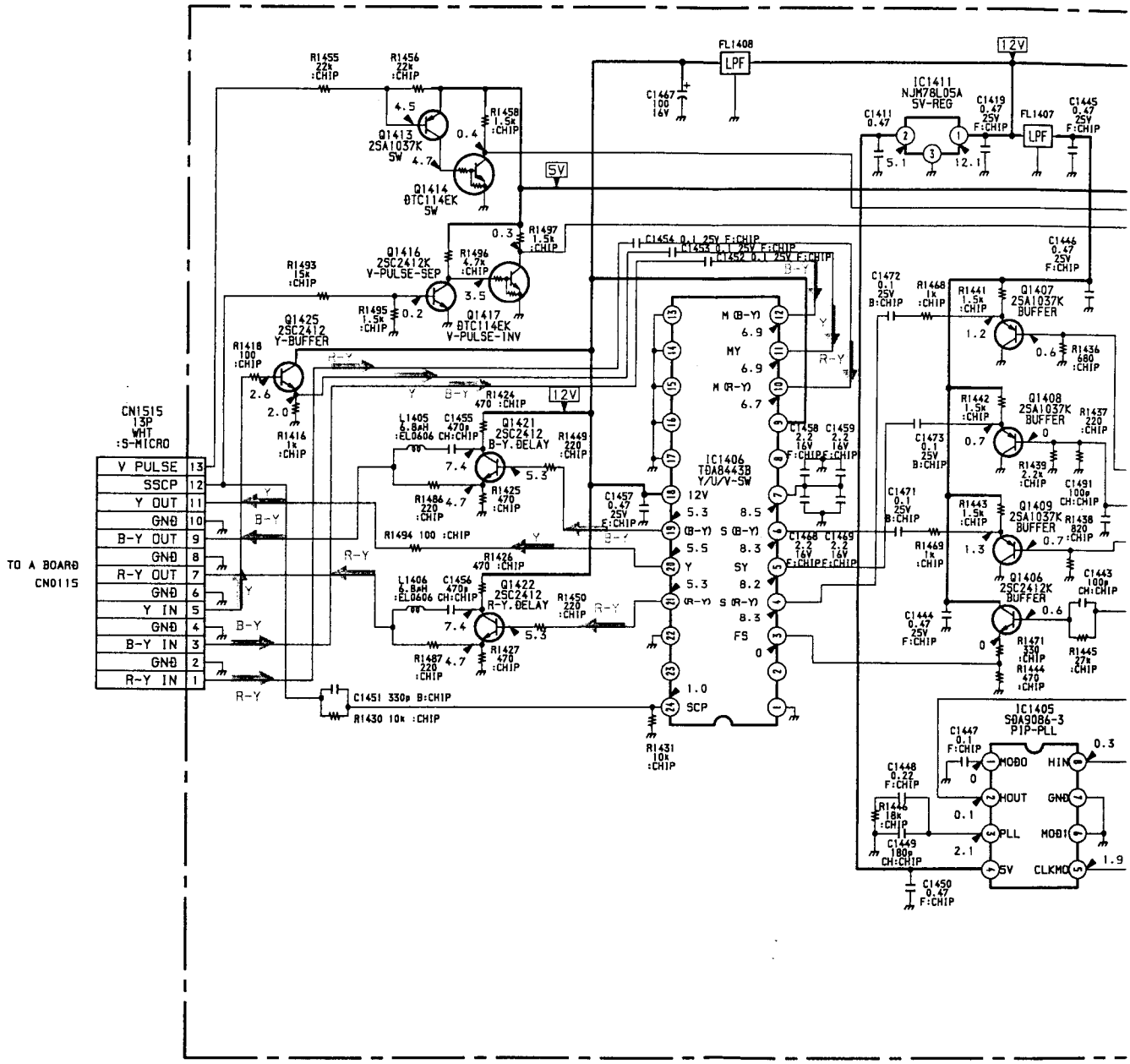
TRANSISTOR	
Q601	A – 3
Q602	F – 1
Q603	E – 1
Q604	A – 2
Q605	E – 2
Q606	B – 2
Q611	F – 1
Q612	F – 1
Q613	B – 1
Q801	D – 5
Q802	E – 3
Q806	D – 3
Q807	E – 4
Q813	E – 3
Q1501	F – 8
Q1502	F – 8
Q1503	F – 8
Q1504	F – 7

DIODE	
D601	A – 2
D602	B – 1
D604	B – 2
D605	E – 2
D606	B – 2
D607	A – 2
D608	A – 3
D610	C – 2
D611	D – 2
D612	C – 2
D613	B – 2
D614	B – 2
D616	B – 1
D619	F – 1
D620	F – 2
D621	C – 1
D624	E – 2
D801	B – 6
D802	B – 7
D803	F – 4
D809	E – 3
D811	D – 3
D812	C – 9
D813	B – 9
D814	E – 7
D815	B – 6
D816	A – 7
D822	E – 3
D824	E – 5
D825	F – 4
D826	C – 7
D828	E – 3
D1501	F – 8
D1503	F – 8
D1504	F – 7

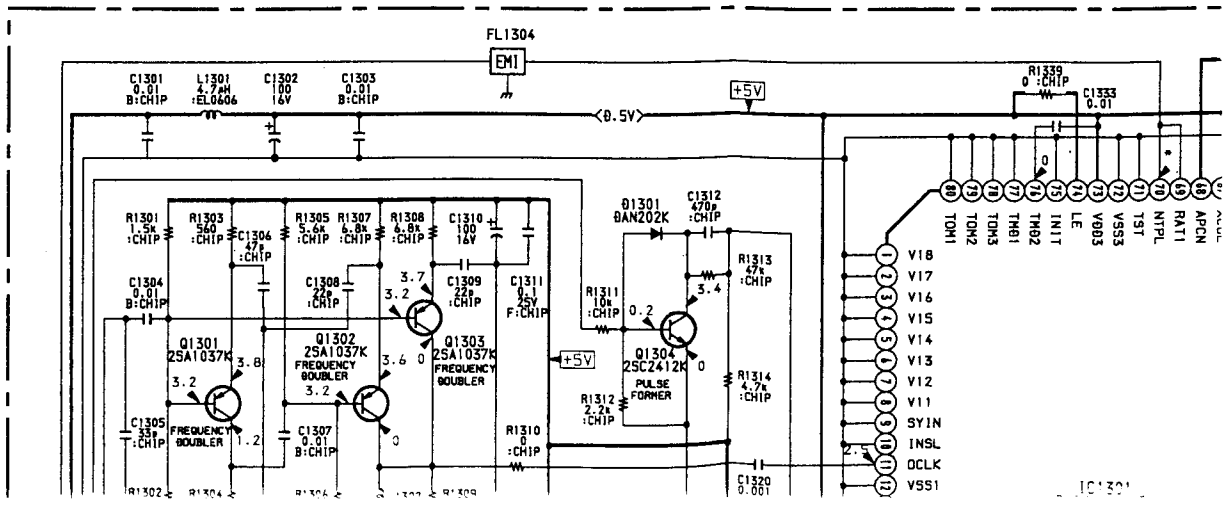
VARIABLE RESISTOR	
RV601	E – 1

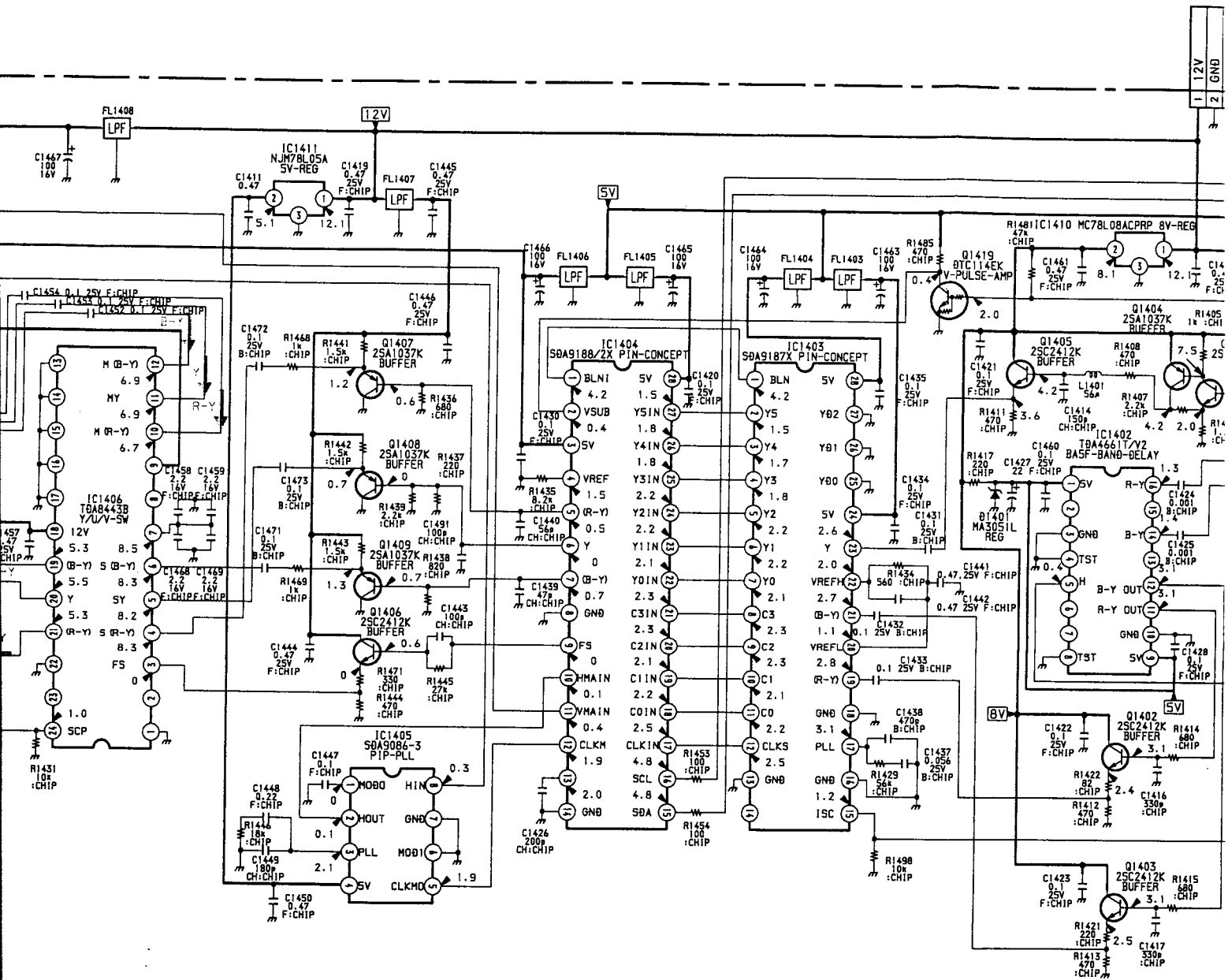


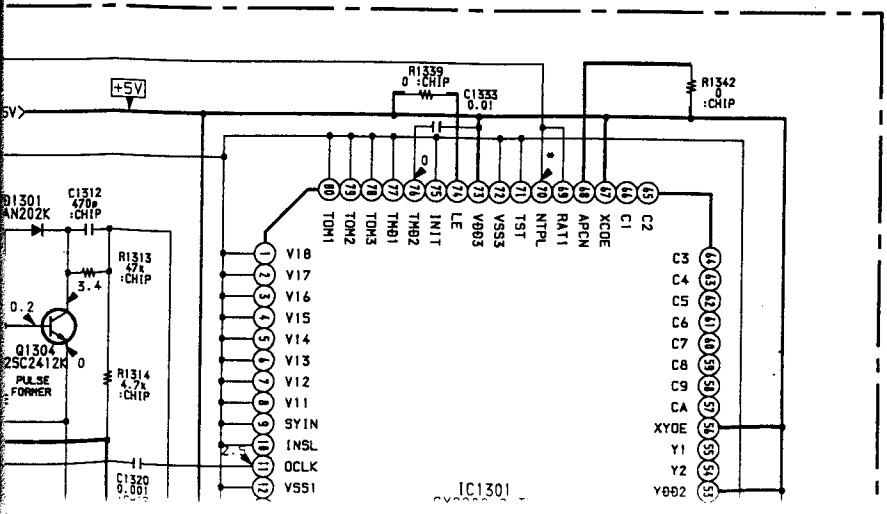
(French Model only)

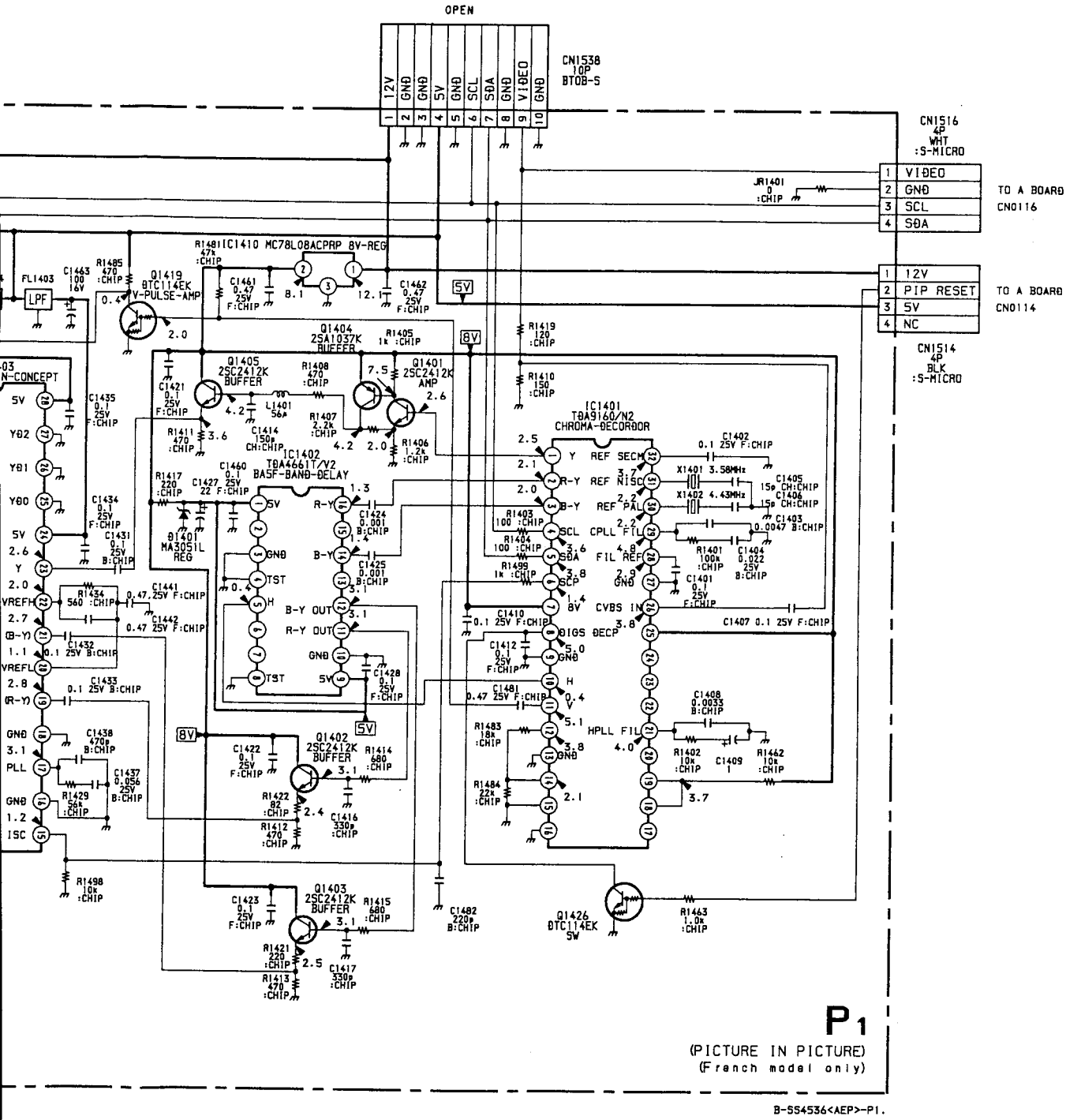


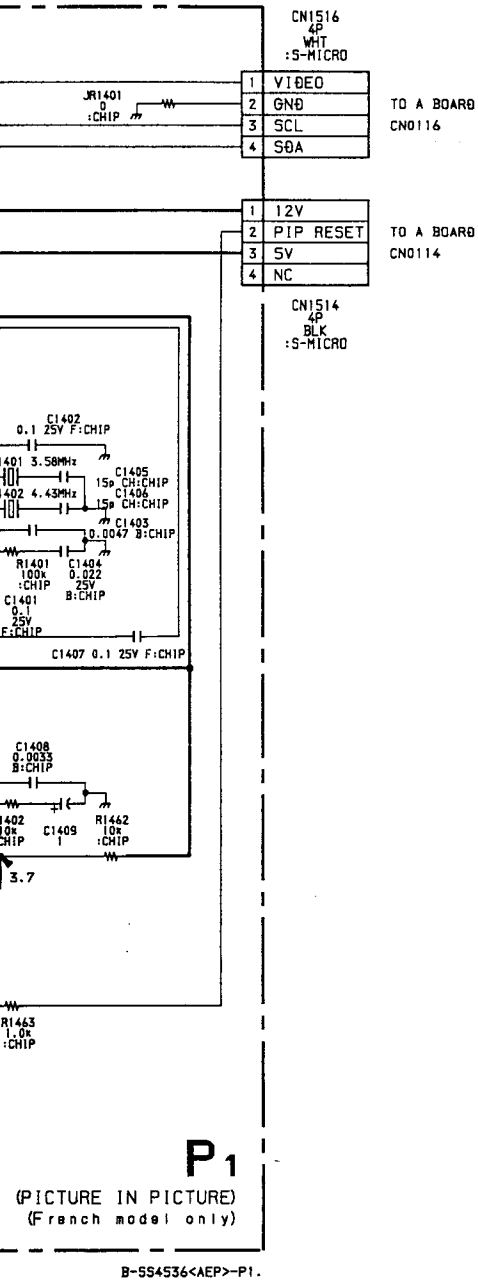
(Except for French Model)



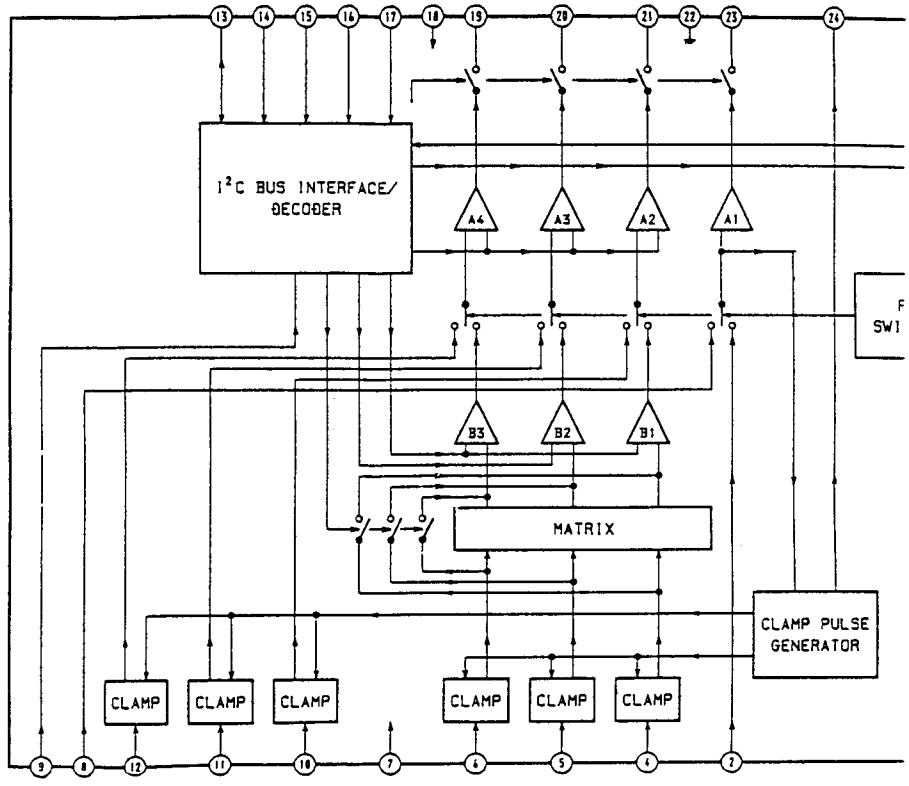

12V
GND
FL1408
LPF
IC1411
NJM78L05A
5V-REG
FL1407
5V
FL1406
FL1405
FL1404
FL1403
IC1410 MC78L08ACPRP 8V-REG
Q1419
DTC114EK
V-PULSE-AMP
Q1407
2SA1037K
BUFFER
Q1408
2SA1037K
BUFFER
Q1409
2SA1037K
BUFFER
Q1406
2SC2412K
BUFFER
Q1404
2SA1037K
BUFFER
Q1405
2SC2412K
BUFFER
Q1402
2SC2412K
BUFFER
Q1403
2SC2412K
BUFFER
IC1404
S0A9188/2X PIN-CONCEPT
IC1403
S0A9187X PIN-CONCEPT
IC1406
T0A8443B
Y/U/V-SW
IC1405
S0A9086-3
PIP-PLL
IC1402
T0A4661T/Y2
BASF-BAN0-DELAY
D1401
MA305IL
REG
8V


+5V
IC1301
TDM1
TDM2
TDM3
TM01
TM02
INIT
LE
V003
VSS3
TST
NTPL
RAT1
APCN
XCOE
C1
C2
V18
V17
V16
V15
V14
V13
V12
V11
SYIN
INSL
OCLK
VSS1
C3
C4
C5
C6
C7
C8
C9
CA
XYOE
Y1
Y2
Y002
Q1304
2SC2412K
PULSE
FORMER

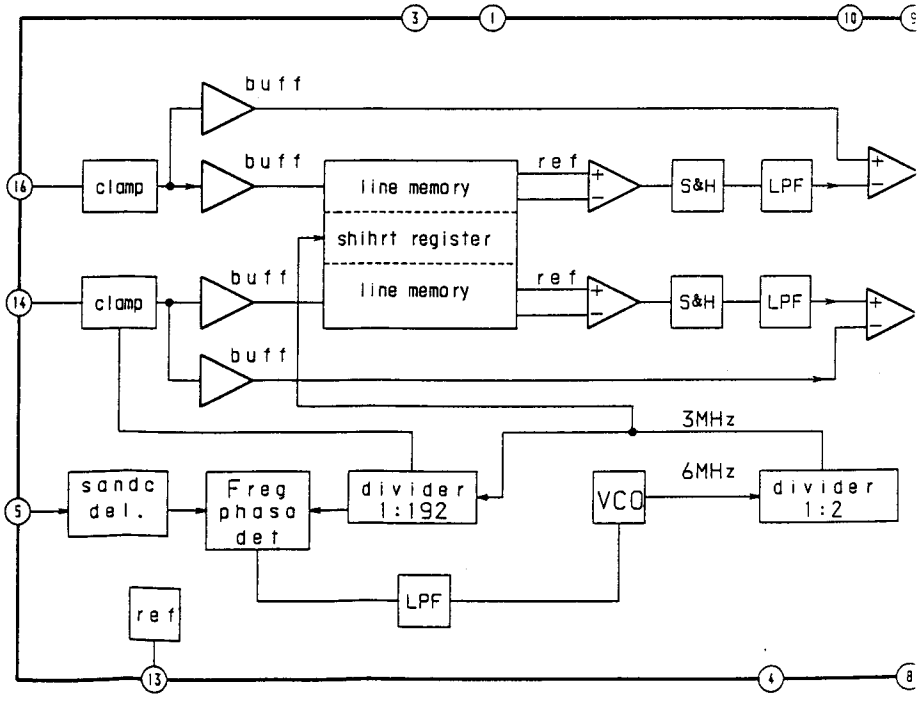

OPEN
CN1538
10P
BTOB-S
12V
GND
GND
5V
GND
SCL
SDA
GND
VIDEO
GND
CN1516
4P
WHT
:S-MICRO
VIDEO
GND
SCL
SDA
JR1401
0
:CHIP
TO A BOARD
CN0116
12V
PIP RESET
5V
NC
TO A BOARD
CN0114
CN1514
4P
BLK
:S-MICRO
IC1410 MC78L08ACPRP 8V-REG
Q1419
DTC114EK
V-PULSE-AMP
Q1404
2SA1037K
BUFFER
Q1405
2SC2412K
BUFFER
Q1401
2SC2412K
AMP
IC1401
TDA9160/N2
CHROMA-DECORDOR
IC1402
TDA4661T/V2
BA5F-BAND-DELAY
Q1401
MA3051L
REG
Q1402
2SC2412K
BUFFER
Q1403
2SC2412K
BUFFER
Q1426
DTC114EK
5V
X1401 3.58MHz
X1402 4.43MHz
LPF
FL1403
L1401
56μ
8V
5V
P1
(PICTURE IN PICTURE)
(French model only)
B-SS4536<AEP>-P1.



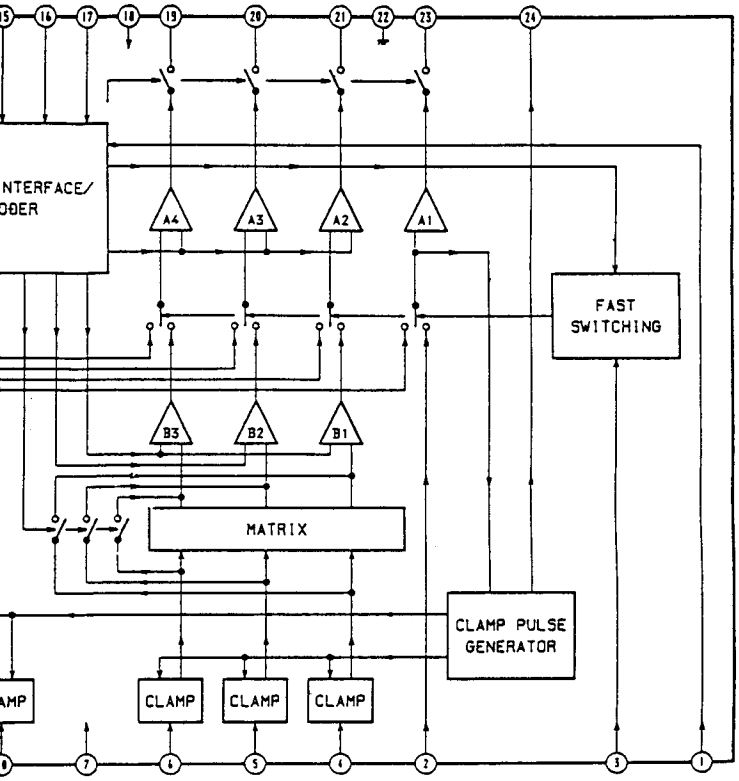
• P1 BOARD IC1406 TDA8443B



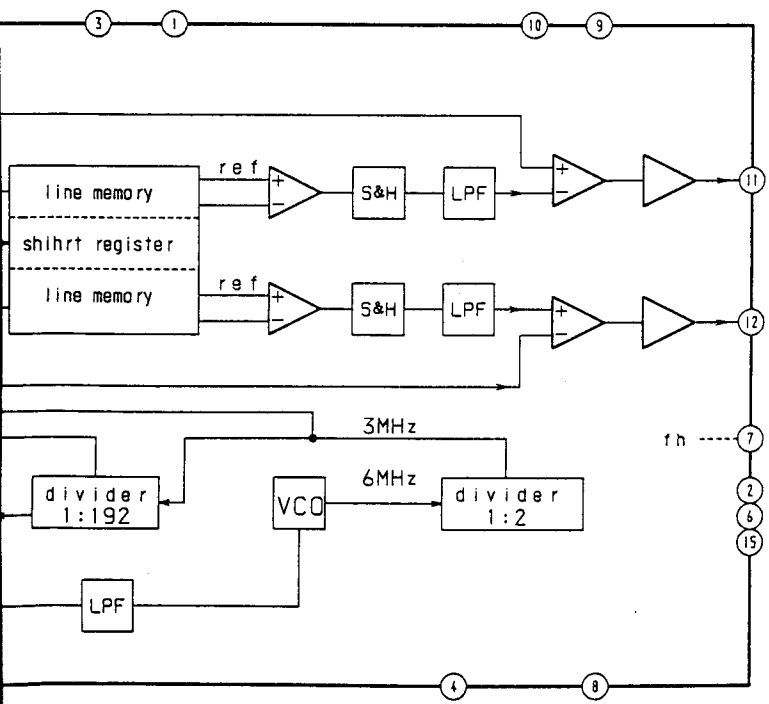
• P1 BOARD IC1402 TDA4661T/V2

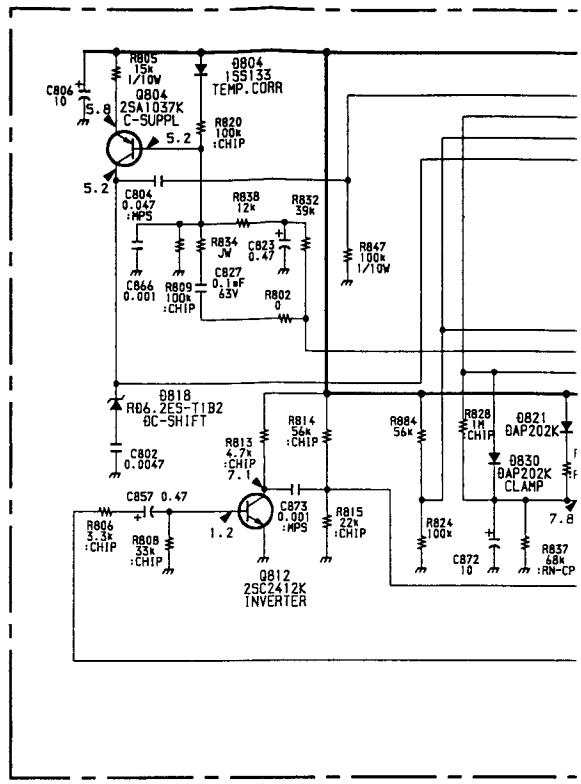


DA8443B



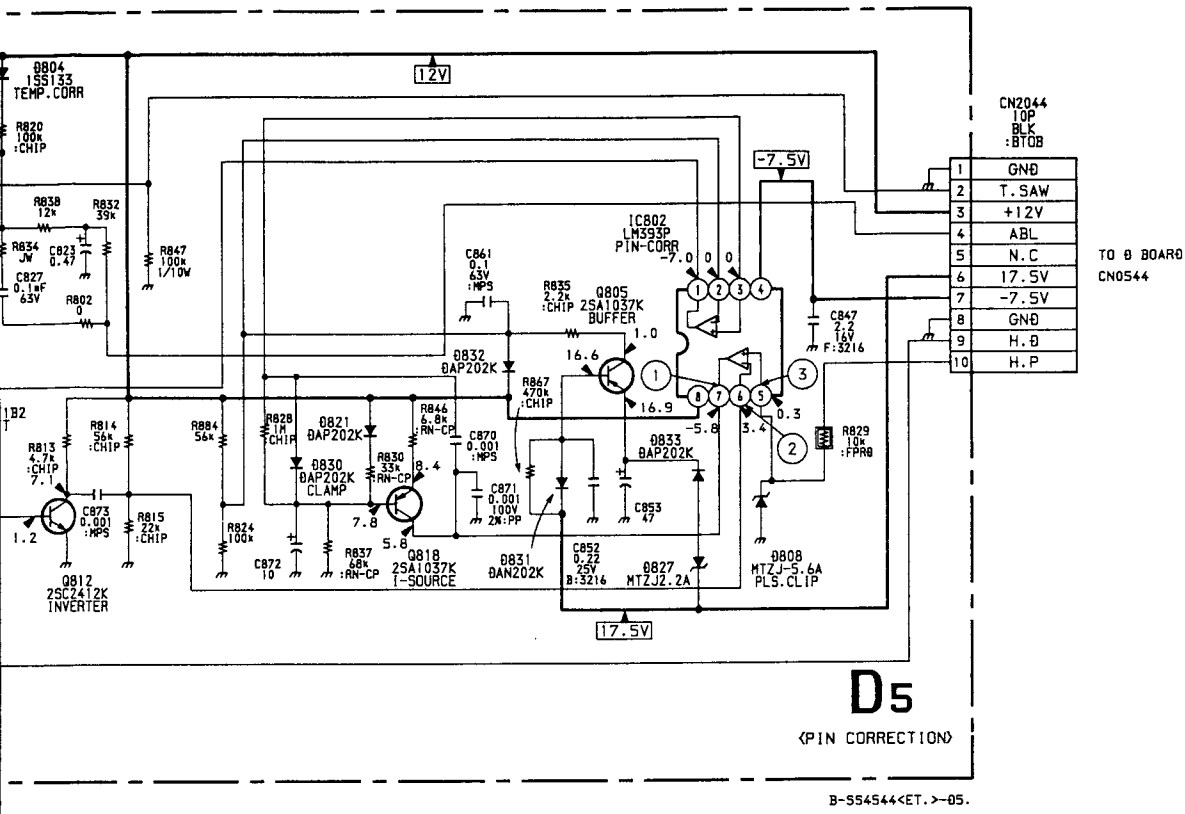
DA4661T/V2





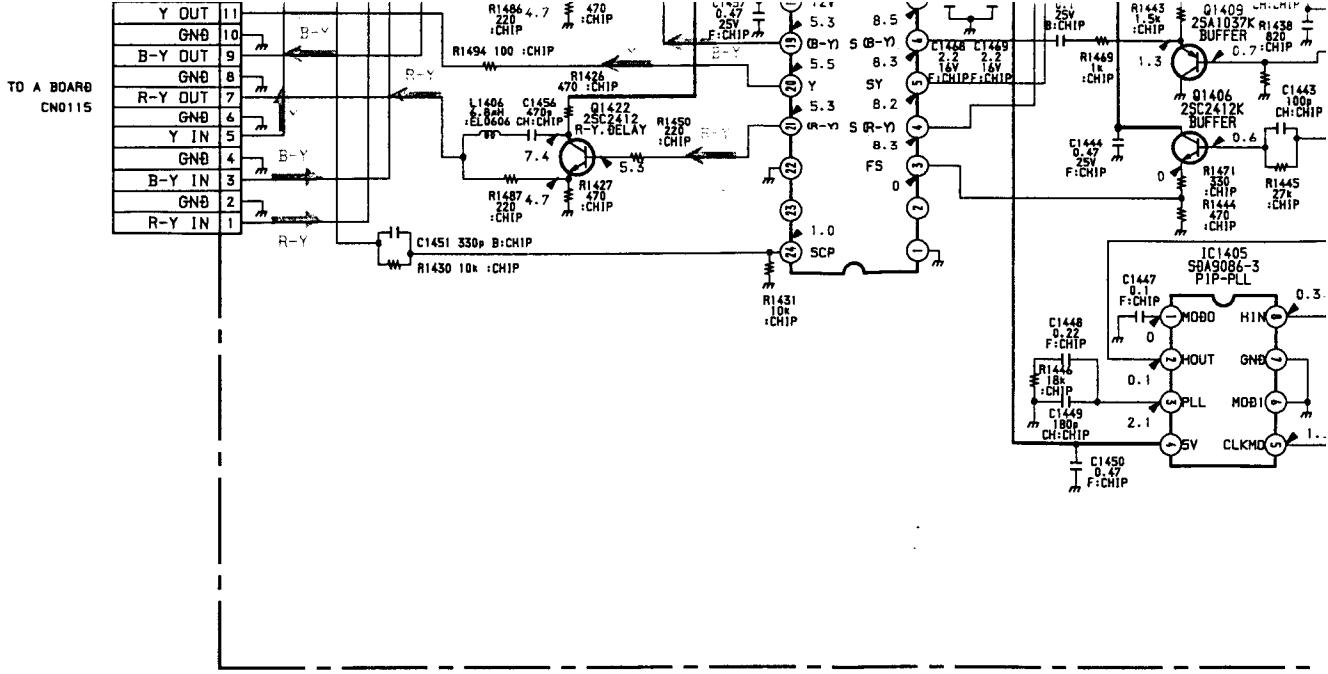
• WAVEFORMS D5 BOARD

①	②
8.5 Vp-p (H)	17.5 Vp-p (H)

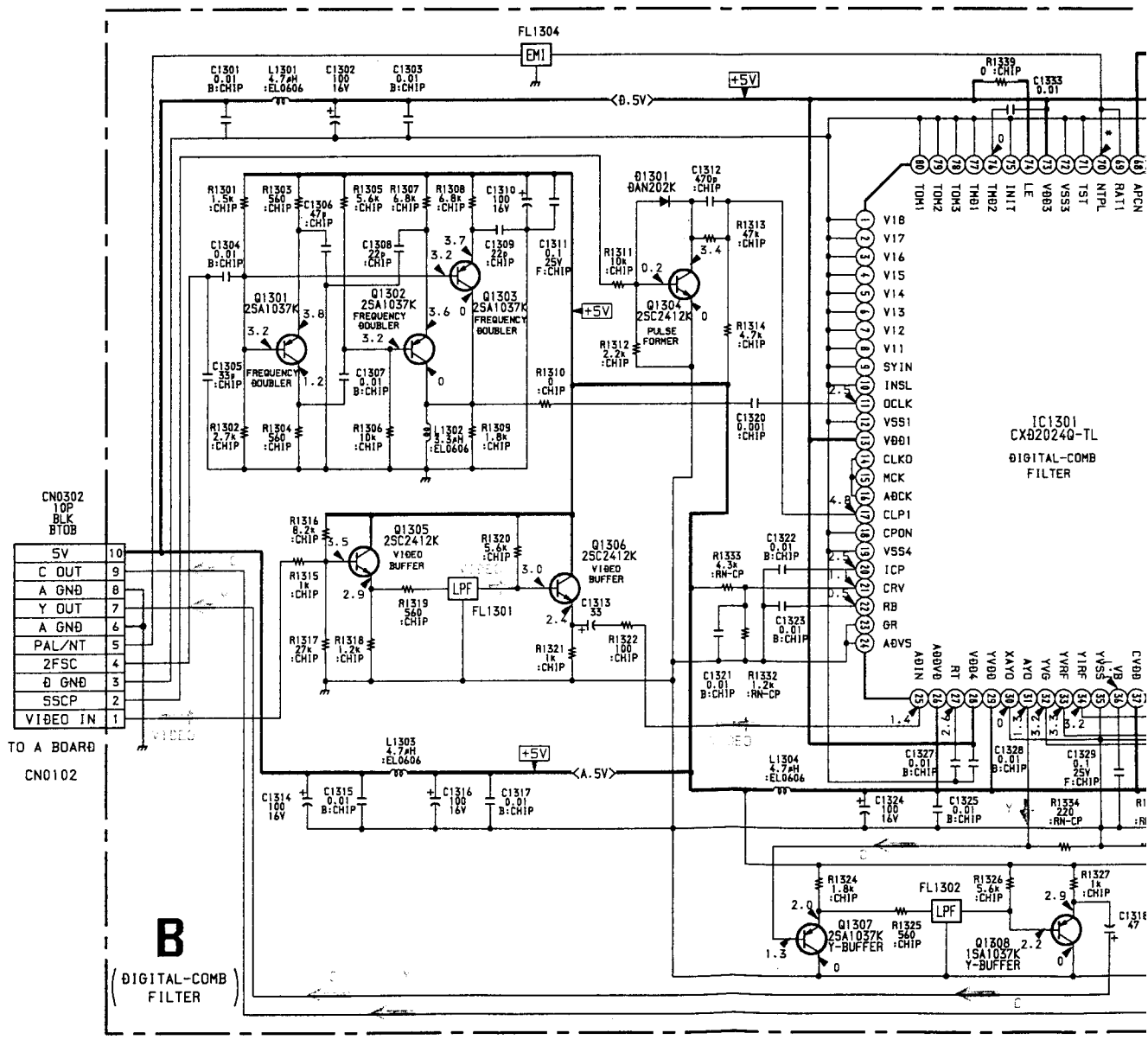


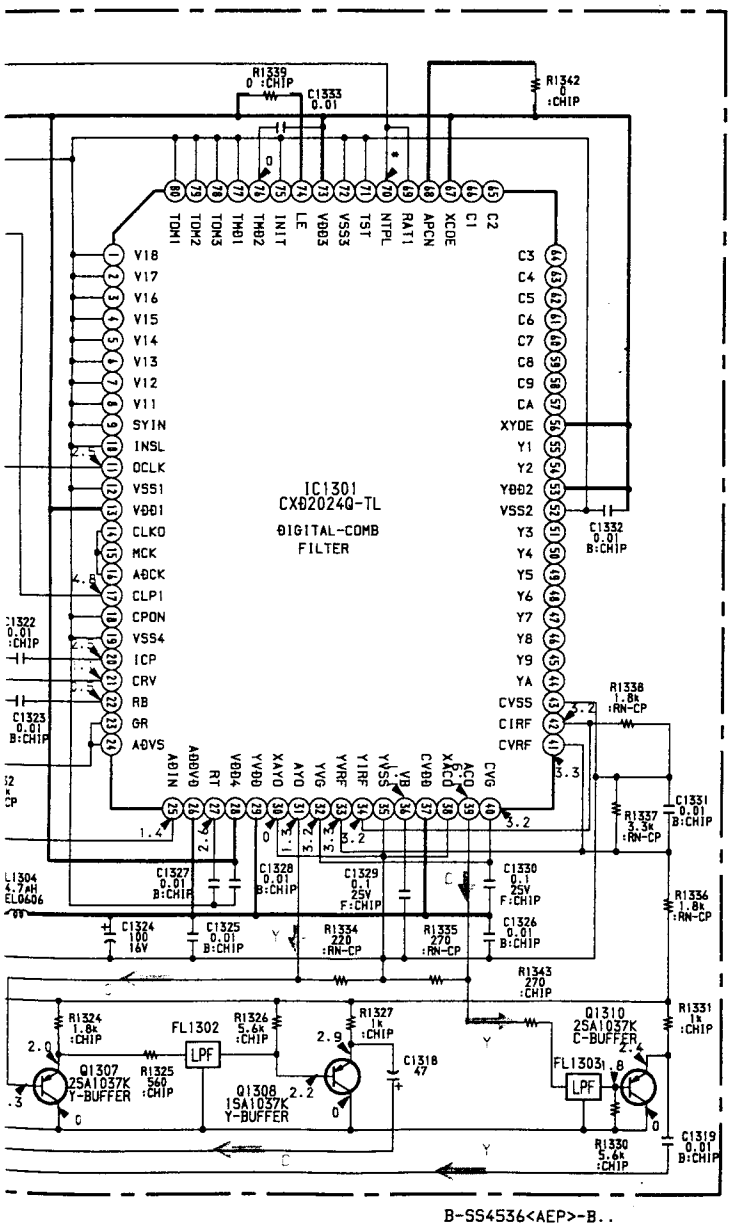
S D5 BOARD

H)	② 17.5 Vp-p (H)	③ 6.0 Vp-p (H)



(Except for French Model)



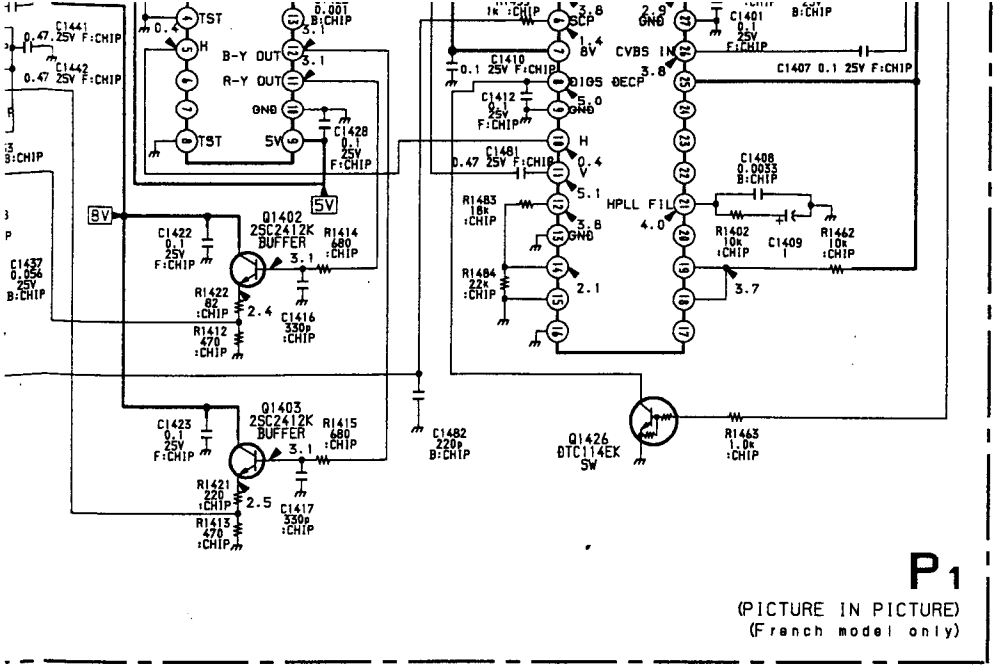


B-SS4536<AEP>-B..

As to the voltage volue shown by the mark ※ on the Schematic Diagram, see the another list.

B BOARD

	PAL	SECAM	NTSC3.58	NTSC4.43
IC1301 ㊾	5.5	5.5	0.1	0.1
㊿	5.5	5.5	0.1	0.1

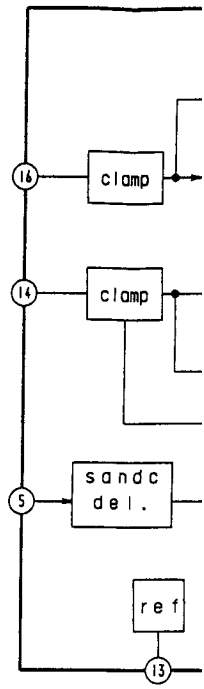


P1

(PICTURE IN PICTURE)
(French model only)

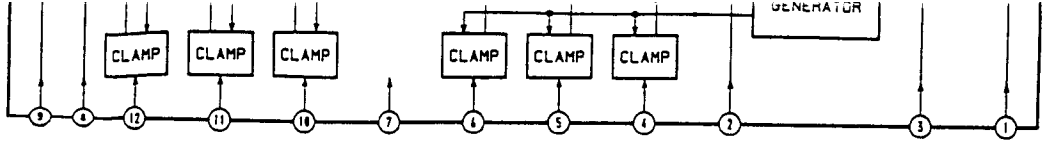
B-SS4536<AEP>-P1.

• P1 BOARD

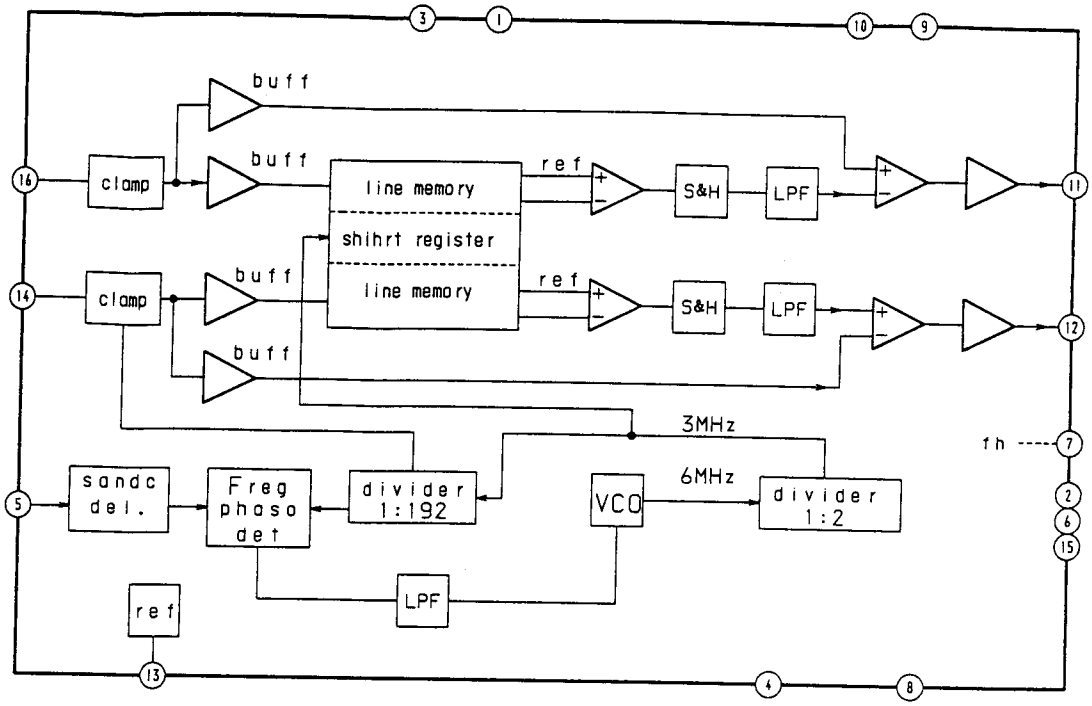


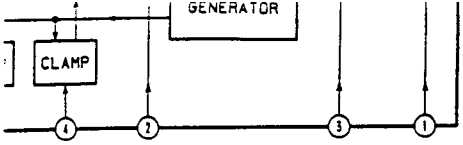
oltage volue shown by
on the Schematic
the another list.

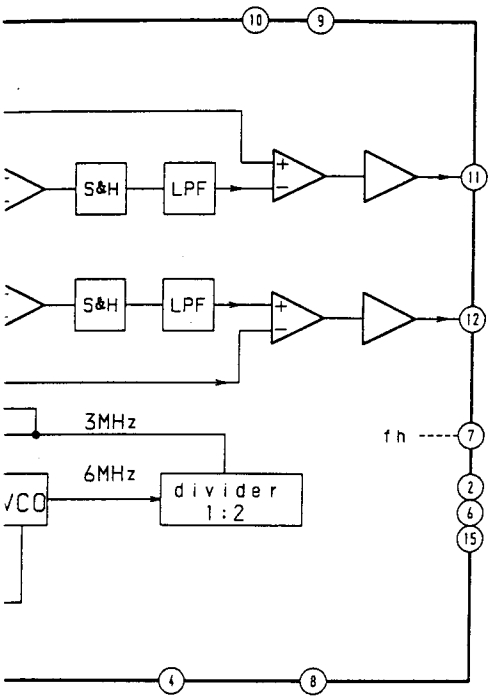
PAL	SECAM	NTSC3.58	NTSC4.43
5.5	5.5	0.1	0.1
5.5	5.5	0.1	0.1



• P1 BOARD IC1402 TDA4661T/V2







• **WAVEFORMS D5 BOARD**

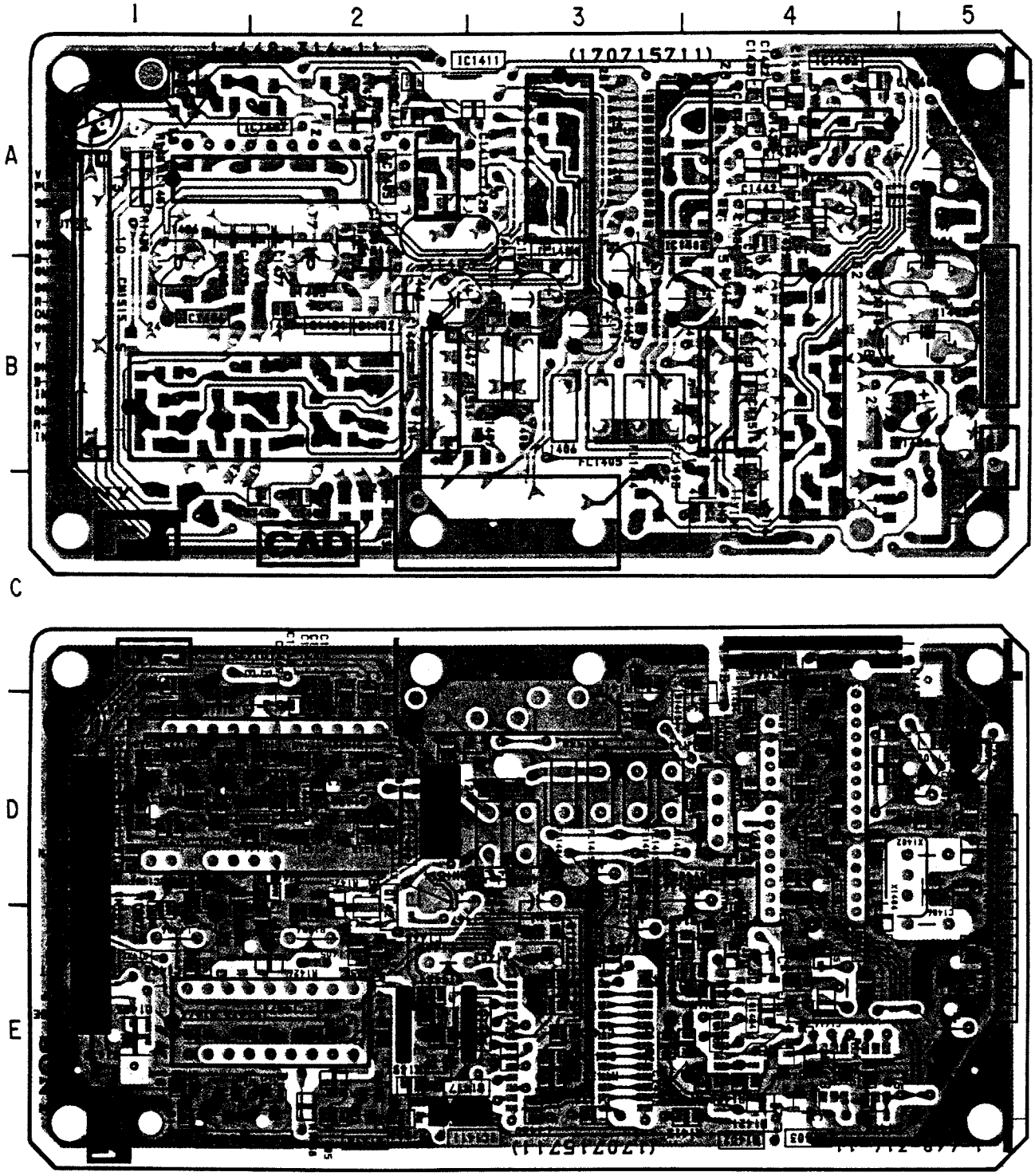
①	②	③
8.5 Vp-p (H)	17.5 Vp-p (H)	6.0 Vp-p (H)

D5 BOARD

	②	③
H)	17.5 Vp-p (H)	6.0 Vp-p (H)

P1 [PICTURE IN PICTURE] **B** [DIGITAL – COMB FILTER] **D5** [PIN CORRECTION]

– P1 BOARD – (French Model only)



Note :

- : Pattern from the side which enables seeing.
- : Pattern of the rear side.

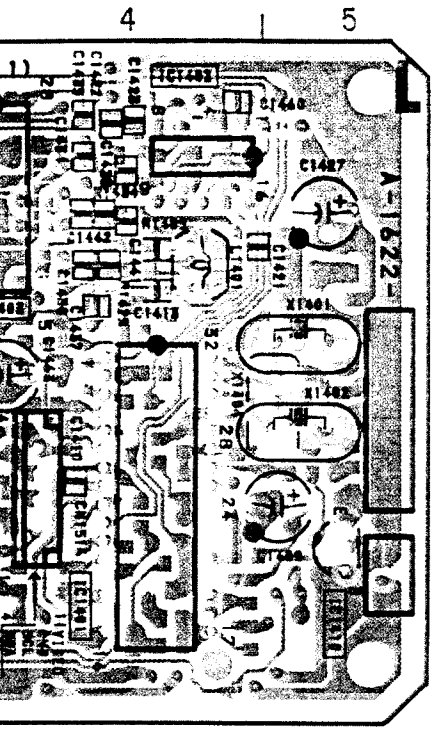
IC1401
IC1402
IC1403
IC1404
IC1405
IC1406
IC1410
IC1411

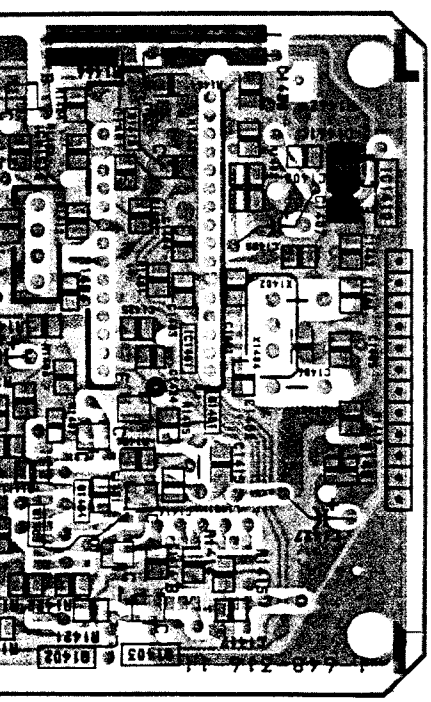
TRA

Q1401
Q1402
Q1403
Q1404
Q1405
Q1406
Q1407
Q1408
Q1409
Q1413
Q1414
Q1416
Q1417
Q1419
Q1421
Q1422
Q1425
Q1426

D1401

[PIN CORRECTION]





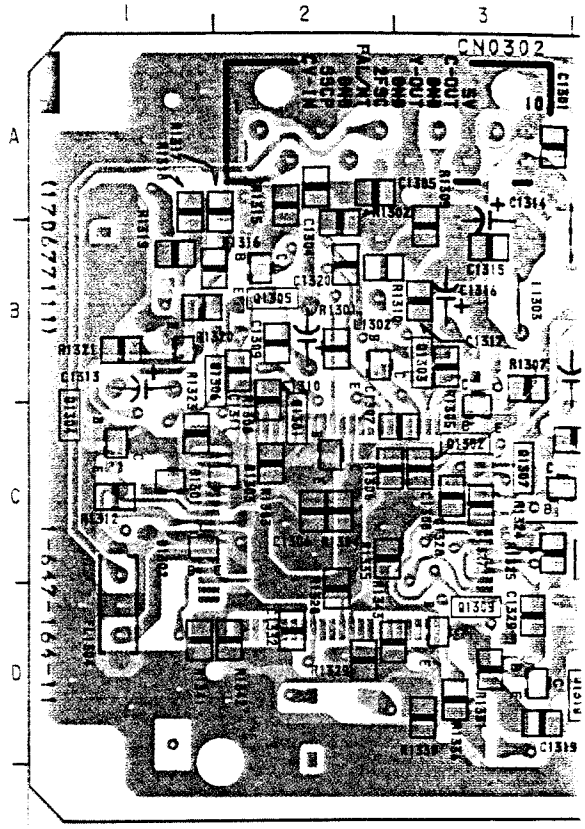
Pattern from the side which enables seeing.
Pattern of the rear side.

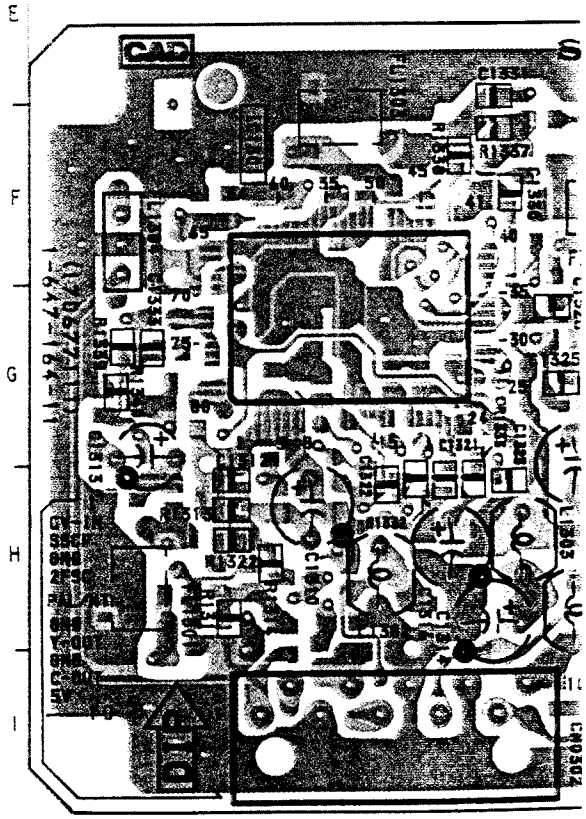
IC	
IC1401	B – 4, D – 4
IC1402	A – 4
IC1403	A – 3
IC1404	A – 3
IC1405	A – 2, E – 2
IC1406	B – 1, D – 2
IC1410	B – 5, D – 5
IC1411	A – 2, E – 2

TRANSISTOR	
Q1401	E – 4
Q1402	E – 4
Q1403	E – 4
Q1404	E – 4
Q1405	E – 4
Q1406	D – 2
Q1407	D – 1
Q1408	D – 1
Q1409	D – 2
Q1413	E – 1
Q1414	E – 2
Q1416	E – 2
Q1417	E – 2
Q1419	D – 4
Q1421	E – 2
Q1422	E – 1
Q1425	D – 2
Q1426	D – 3

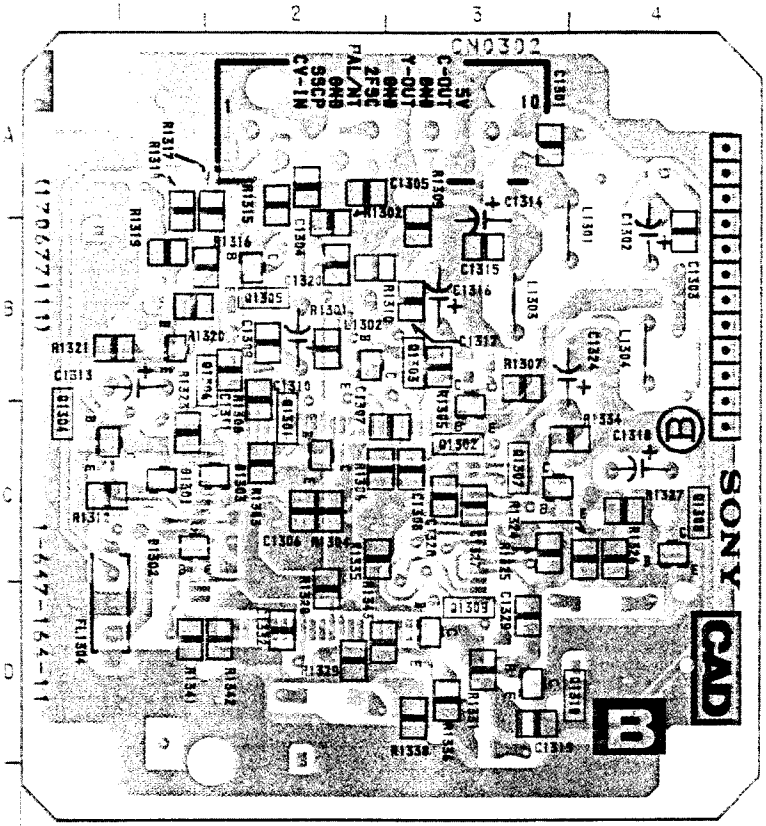
DIODE	
D1401	E – 5

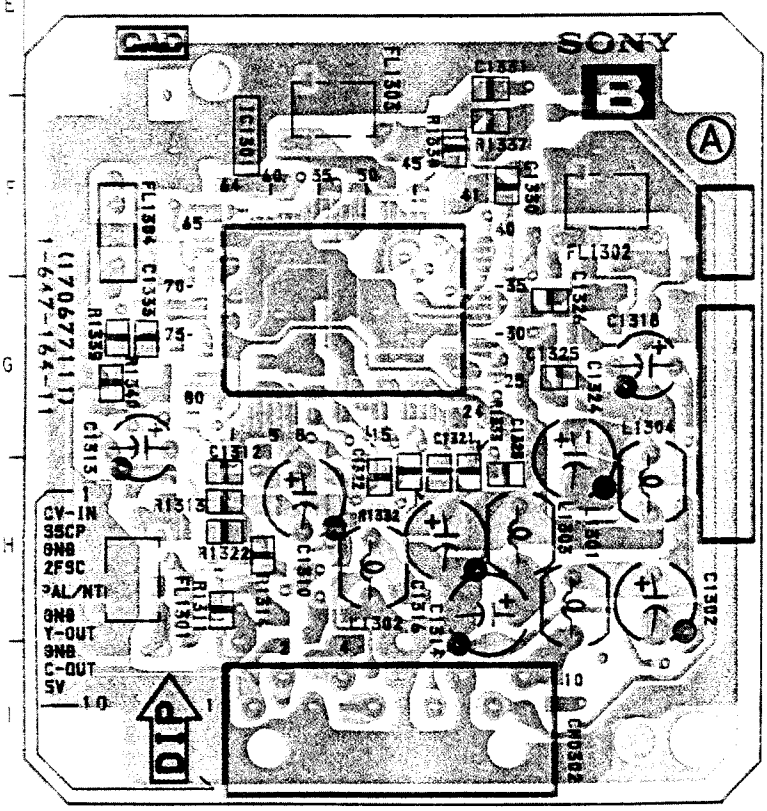
– B BOARD – (Except for French Model)





– B BOARD – (Except for French Model)





IC	
IC1301	G – 2

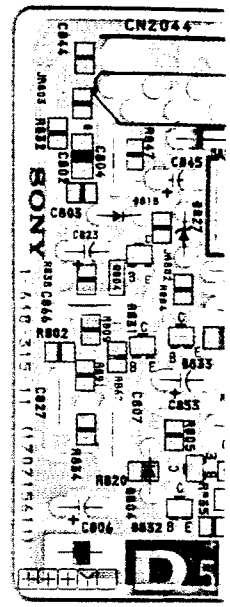
TRANSISTOR	
Q1301	C – 2
Q1302	B – 3
Q1303	B – 2
Q1304	C – 1
Q1305	B – 2
Q1306	B – 1
Q1307	C – 3
Q1308	C – 4
Q1310	D – 3

DIODE	
D1301	C – 1

Note :

• : Pattern of the rear side.

– D5 BOARD –

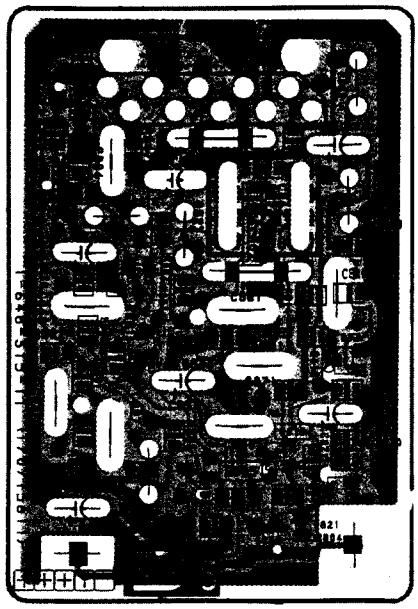


Note :

• : Pattern of the

G - 2
STOR
C - 2
B - 3
B - 2
C - 1
B - 2
B - 1
C - 3
C - 4
D - 3
DE
C - 1

- D5 BOARD -



Note :

- : Pattern from the side which enables seeing.
- : Pattern of the rear side.

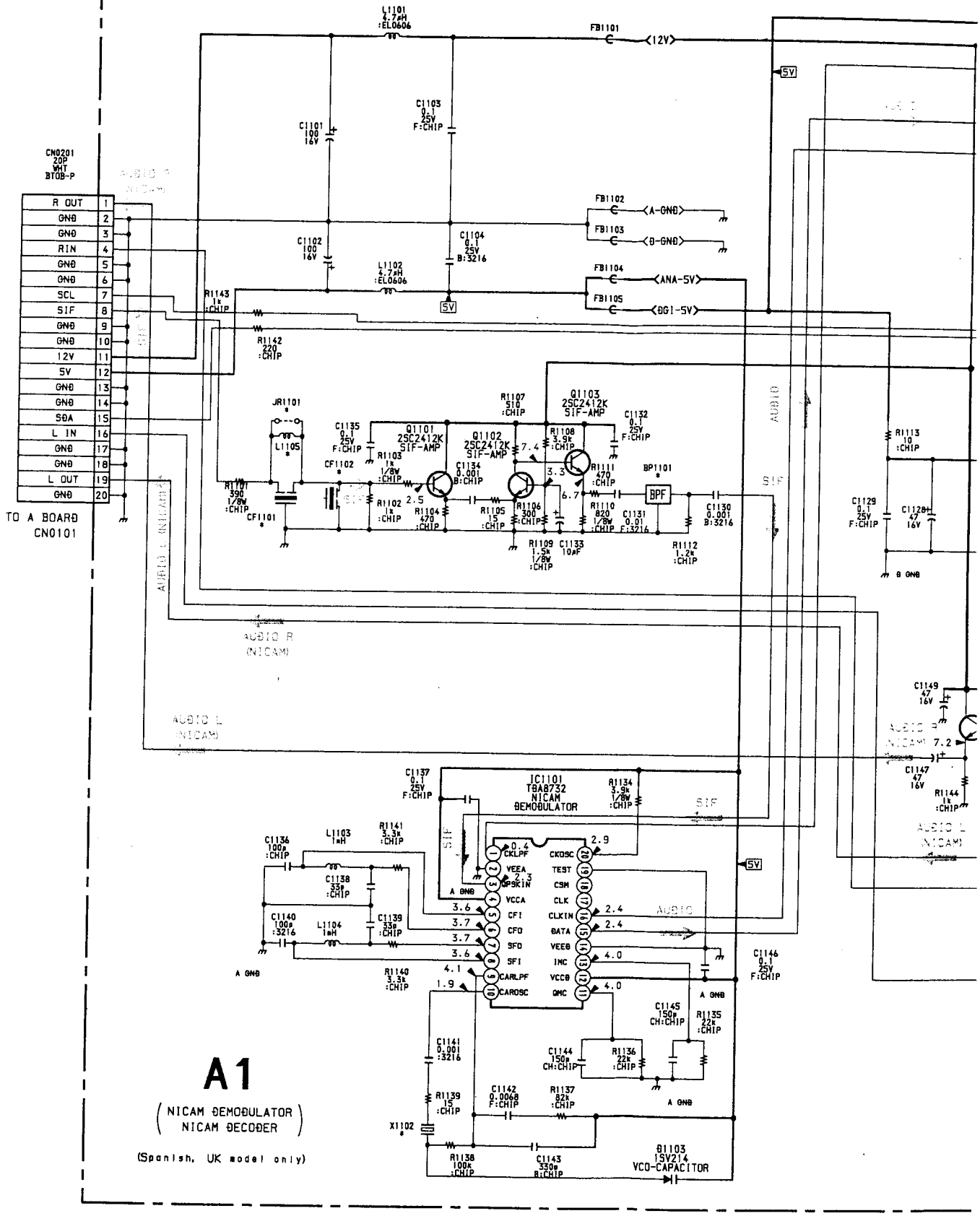
rn from the side which enables seeing.
rn of the rear side.

Schematic diagrams

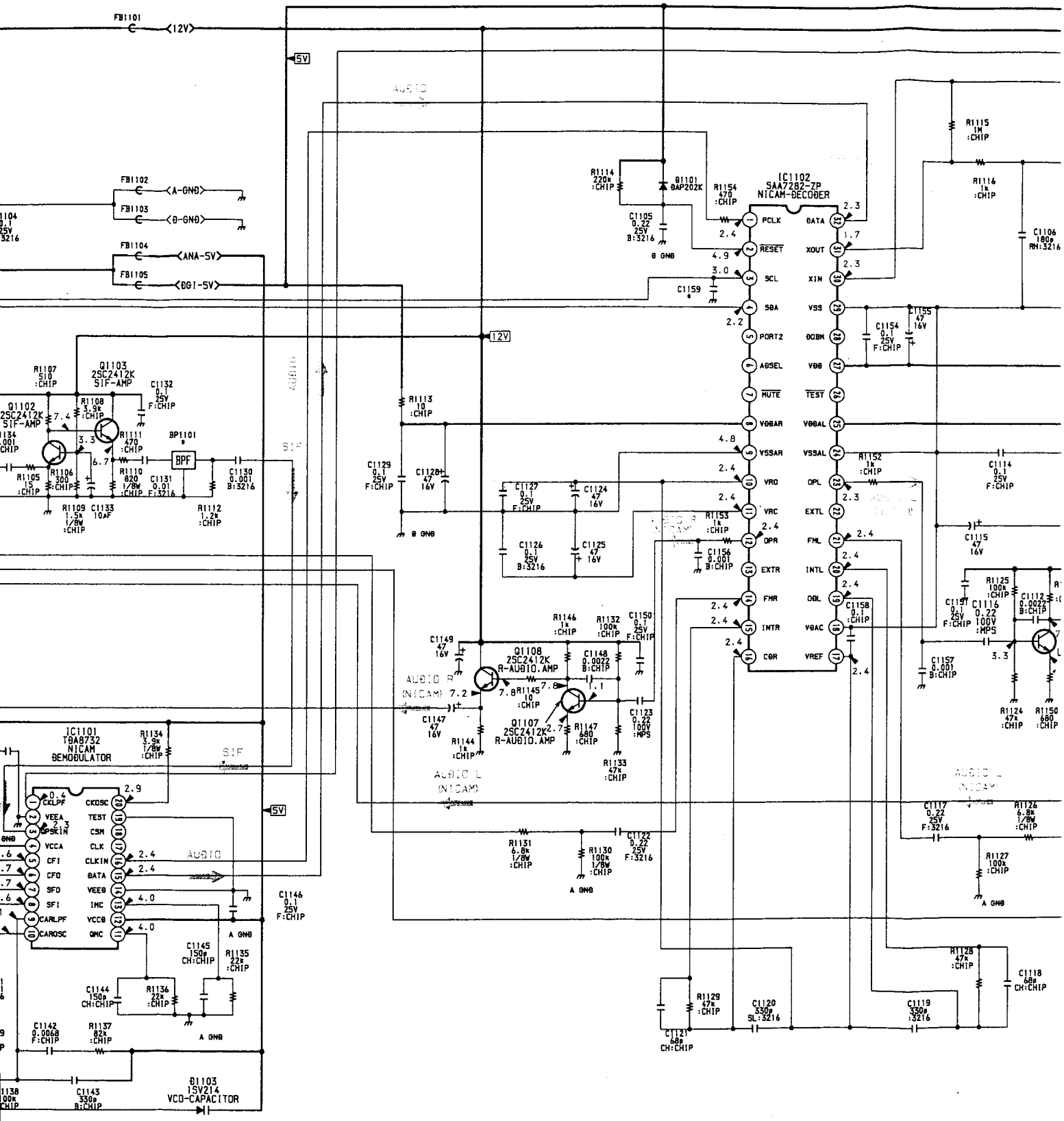
A1 C

boards ➡

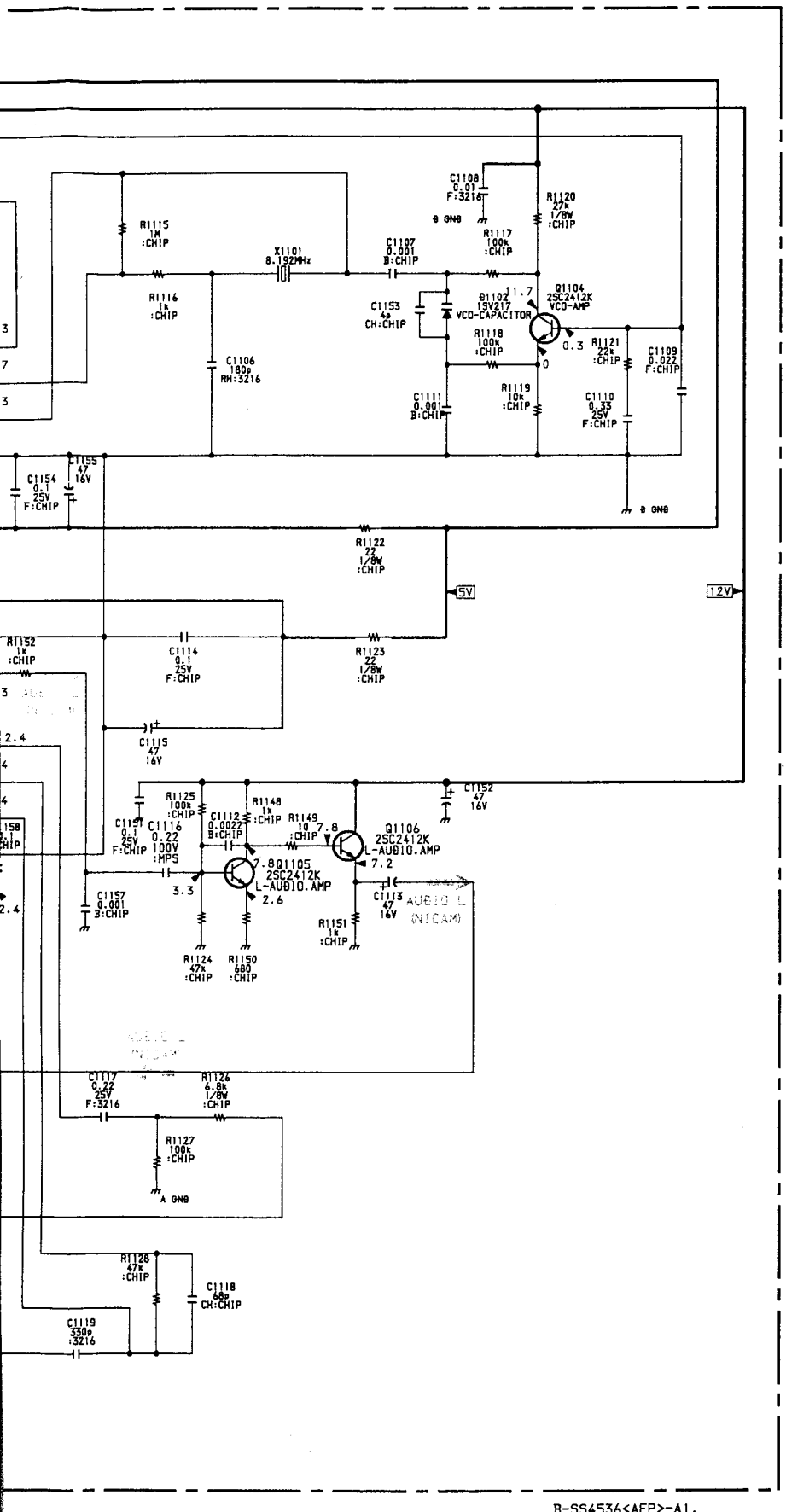
(Spanish, UK Model only)



5 6 7 8 9 10 11 12 1



12 13 14 15 16 17 18 19



B-SS4536<AEP>-A1.

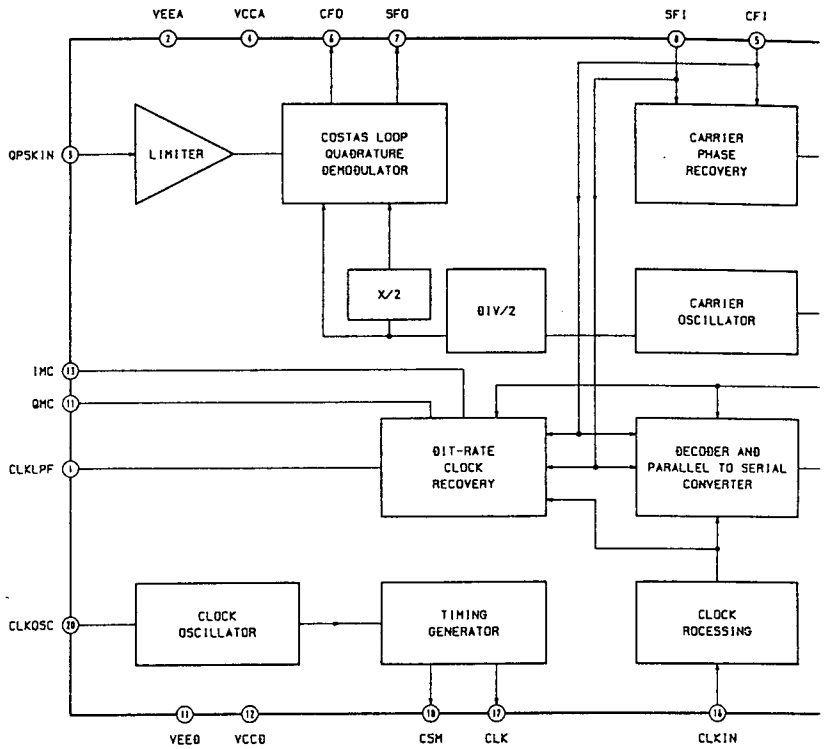
A1 BOARD * MARK

Model	Spanish	UK
BP1101	5.850MHz	6.552MHz
C1159	–	47P CH
CF1101	–	6.0MHz
CF1102	5.5MHz	–
JR1101	0 : CHIP	–
L1105	–	1MMH
X1102	11.700MHz	13.104MHz

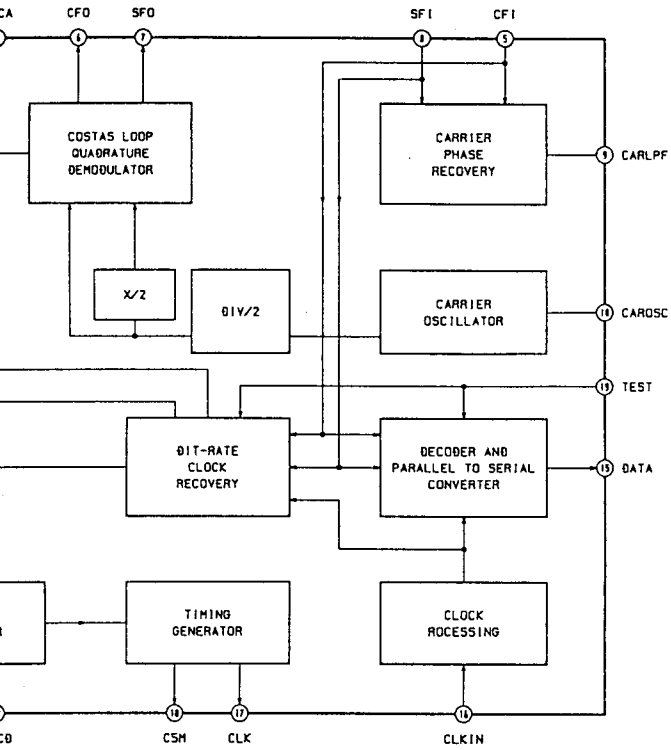
A1 BOARD * MARK

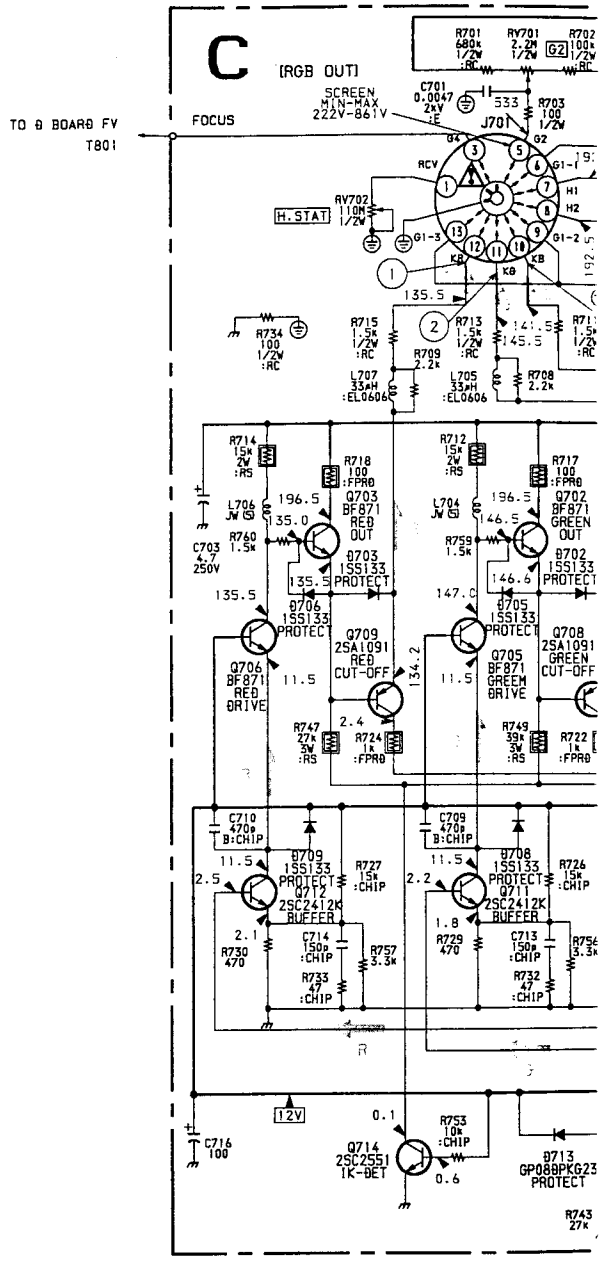
Model	Spanish	UK
BP1101	5.850MHz	6.552MHz
C1159	–	47P CH
CF1101	–	6.0MHz
CF1102	5.5MHz	–
JR1101	0 : CHIP	–
L1105	–	1MMH
X1102	11.700MHz	13.104MHz

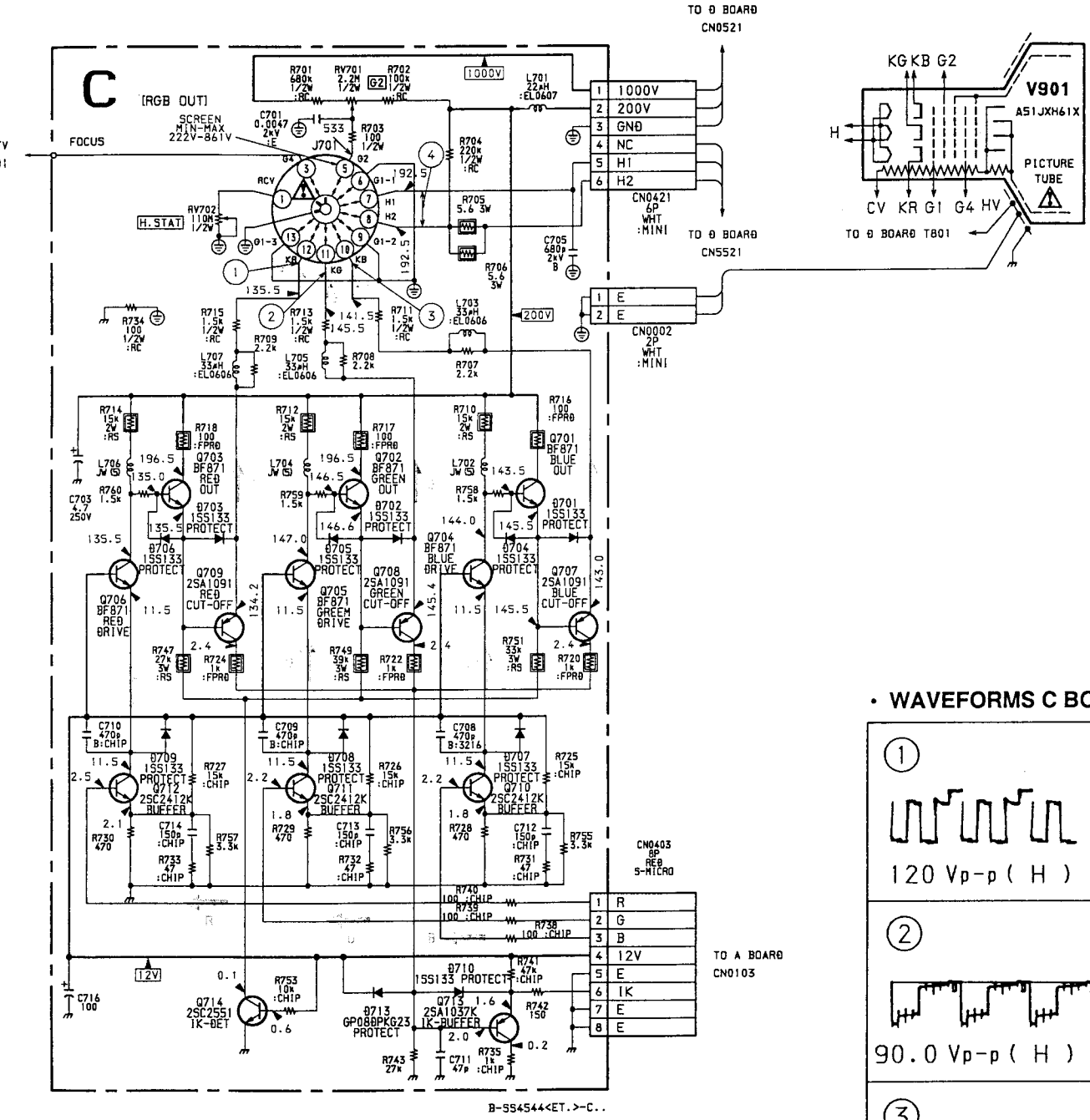
• A1 BOARD IC1101 TDA8732



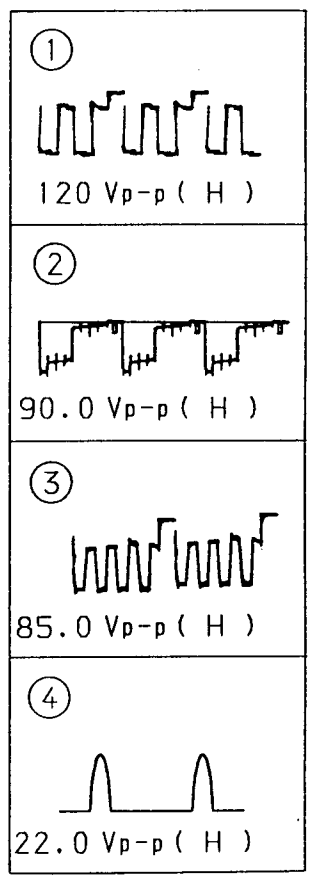
1101 TDA8732





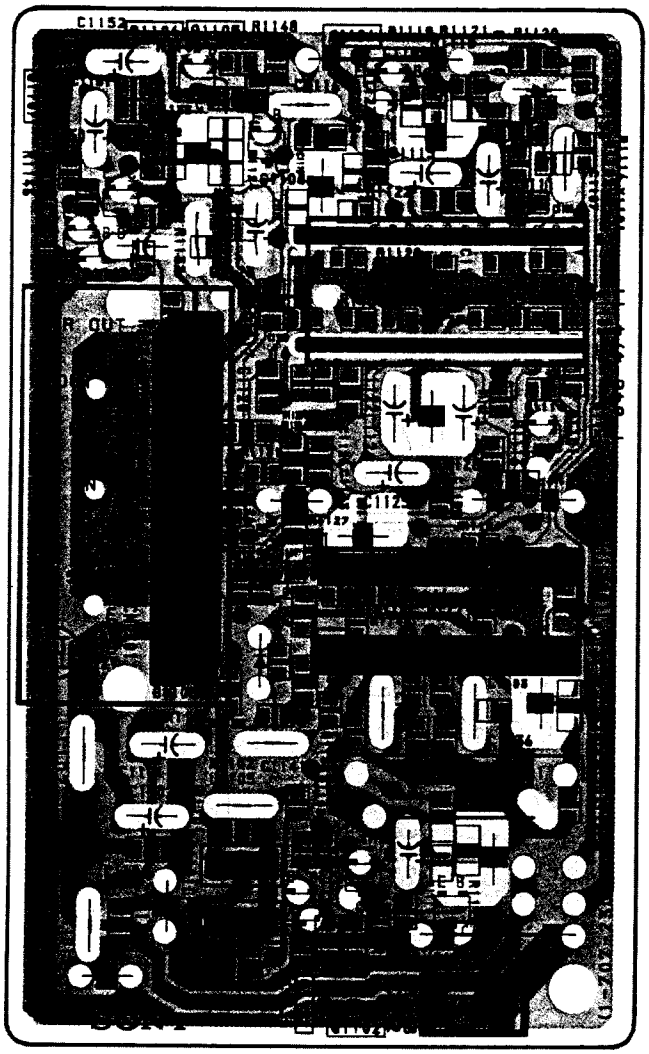


• WAVEFORMS C BOARD

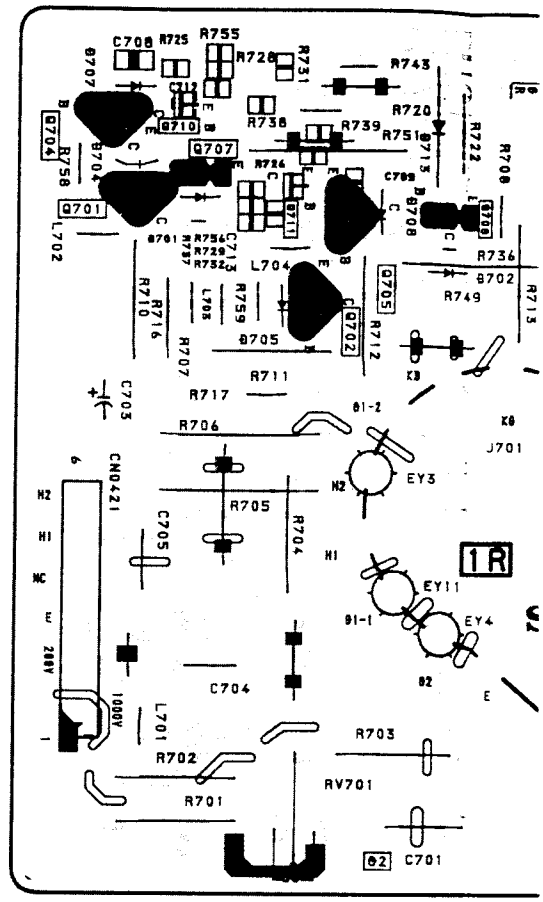


A1 [NICAM DECODER, NICAM DEMODULATOR] **C** [R.G.B OUT]

– A1 BOARD – (Spanish, UK Model only)



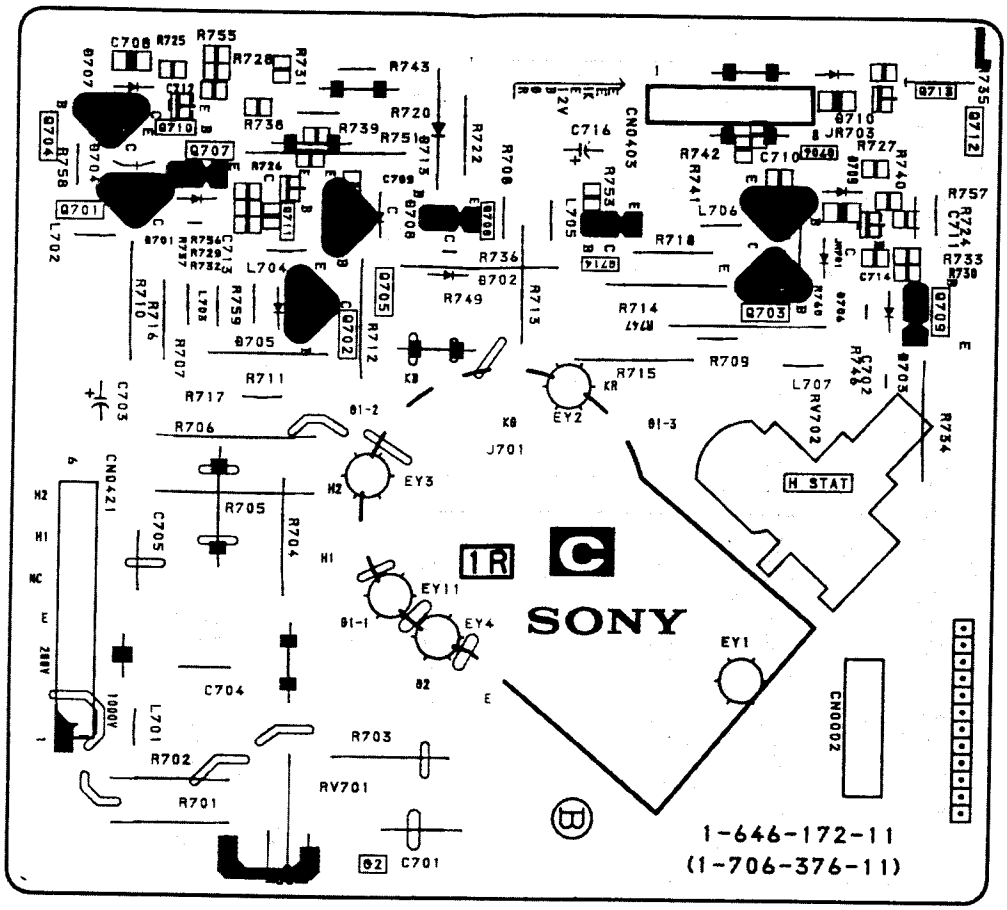
– C BOARD –



Note :

- : Pattern from the side which enables seeing.
- : Pattern of the rear side.

– C BOARD –

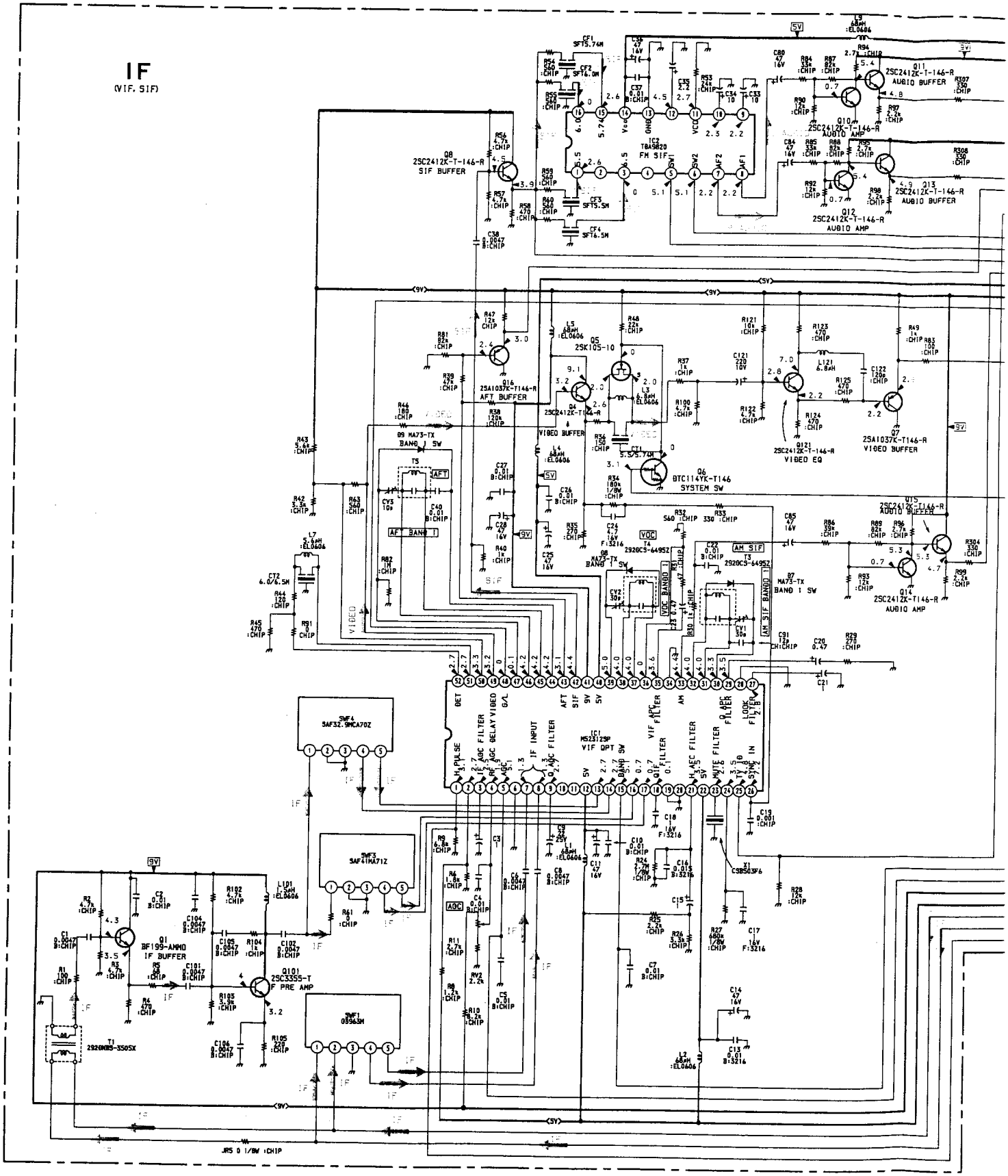


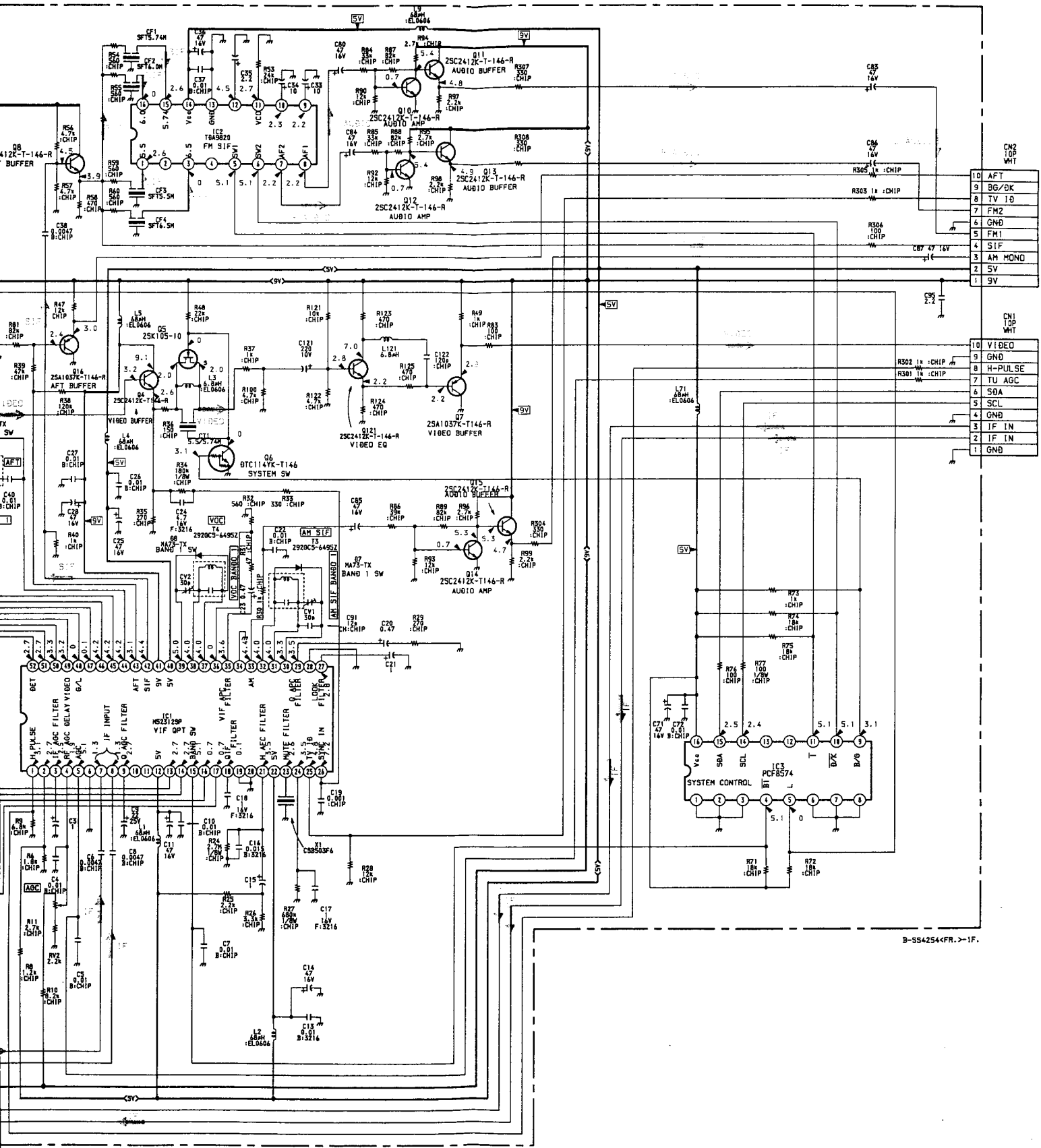
Q713
Q712
R727
R757
R733
C714
Q709
R754
2-11
-11)

Schematic diagrams

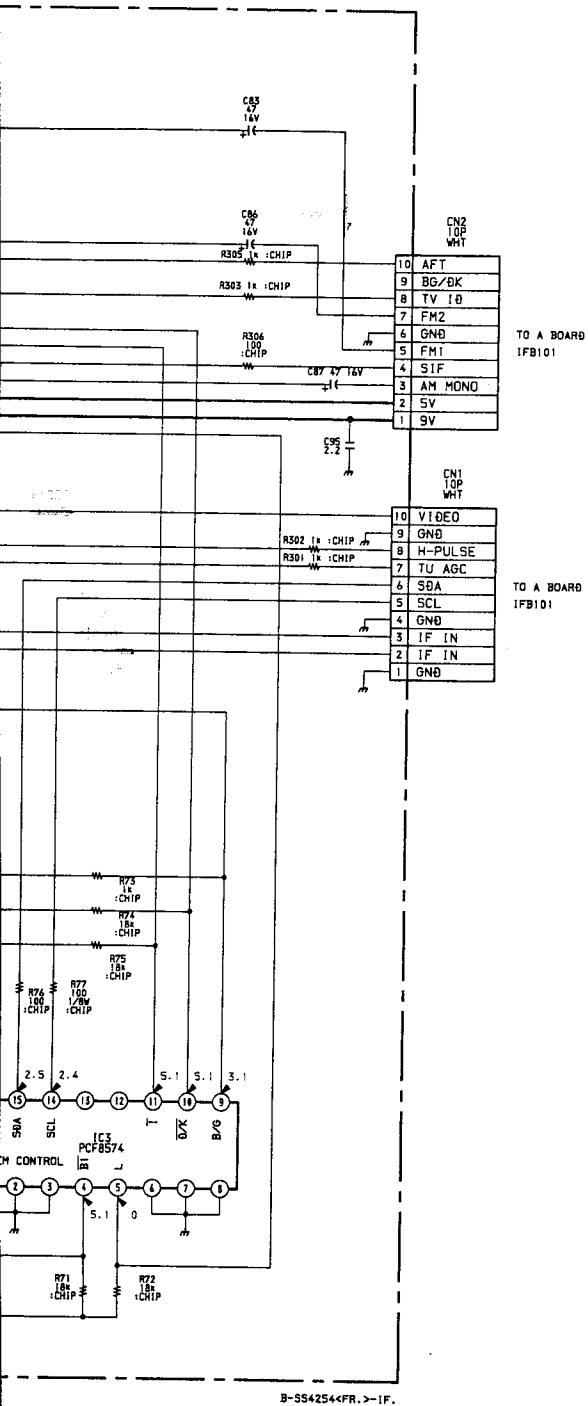
IF boards ➡

IFH389F (French Model)

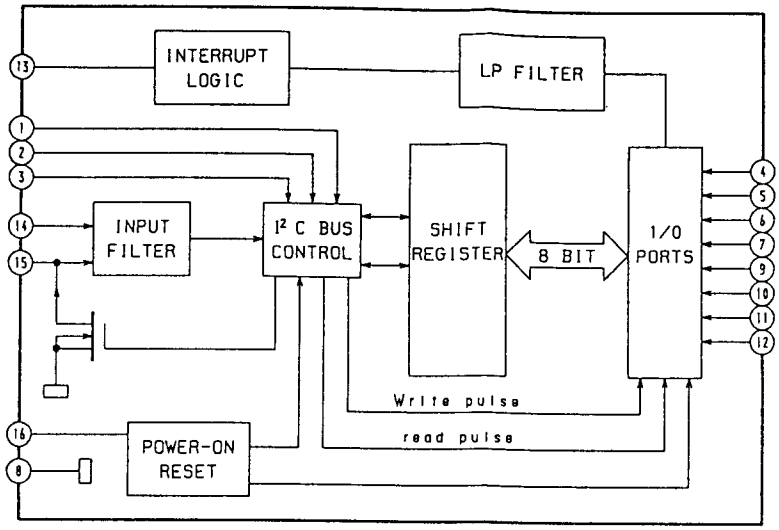



IC1 M52312SP VIF QPT SW
IC2 T6A9820 FM SIF
IC3 PCF8574 SYSTEM CONTROL
Q1 2SC2412K-T-146-R AUDIO BUFFER
Q2 2SC2412K-T-146-R AUDIO AMP
Q3 2SC2412K-T-146-R AUDIO BUFFER
Q4 2SC2412K-T146-R VIDEO BUFFER
Q5 2SK105-10
Q6 DTC114YK-T146 SYSTEM SW
Q7 2SA1037K-T146-R VIDEO BUFFER
Q8 2SA1037K-T146-R AFT BUFFER
Q9 2SC2412K-T-146-R AUDIO AMP
Q10 2SC2412K-T-146-R AUDIO AMP
Q11 2SC2412K-T-146-R AUDIO BUFFER
Q12 2SC2412K-T-146-R AUDIO AMP
Q13 2SC2412K-T-146-R AUDIO BUFFER
Q14 2SC2412K-T146-R AUDIO AMP
Q15 2SC2412K-T146-R AUDIO BUFFER
Q121 2SC2412K-T-146-R VIDEO EQ
CN2 10P WHT
AFT
BG/ØK
TV 1Ø
FM2
GNØ
FM1
SIF
AM MONO
5V
9V
CN1 10P WHT
VIDEO
GNØ
H-PULSE
TU AGC
SØA
SCL
GNØ
IF IN
IF IN
GNØ
B-SS4254<FR.>-1F.

10 | 11 | 12

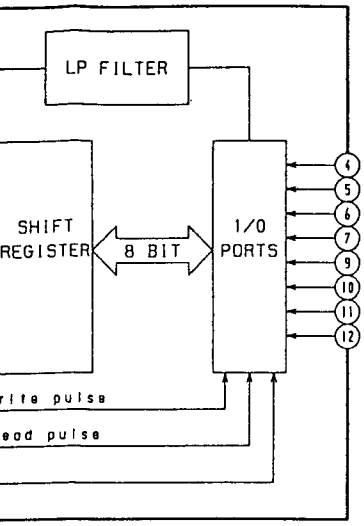


• **IF BOARD IC3 PC8574 (French Model)**

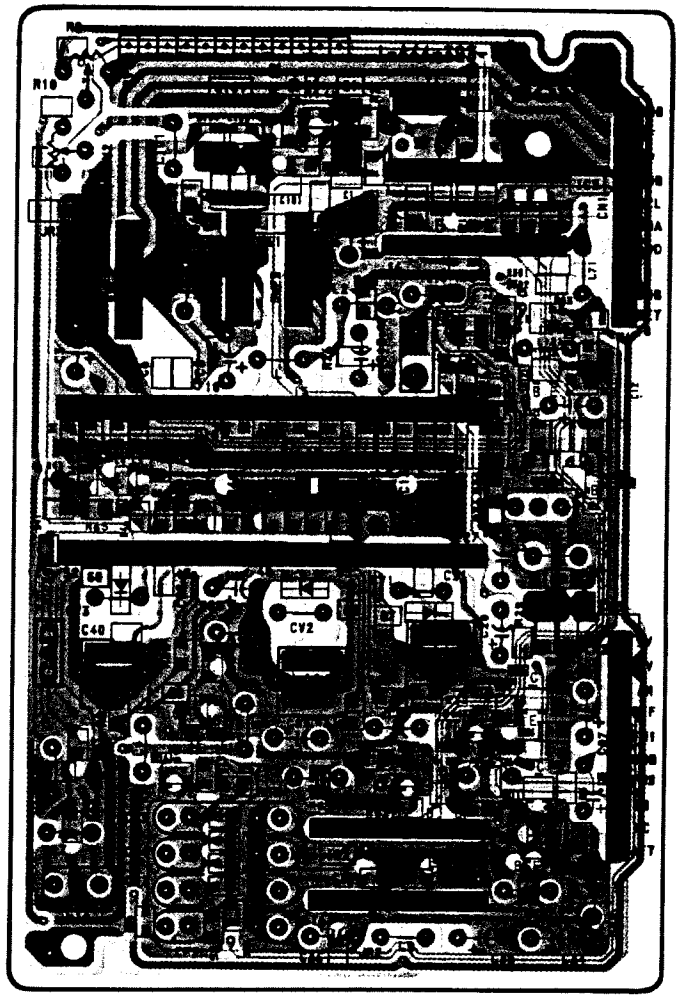


IF [VIF, SIF]

ch Model)



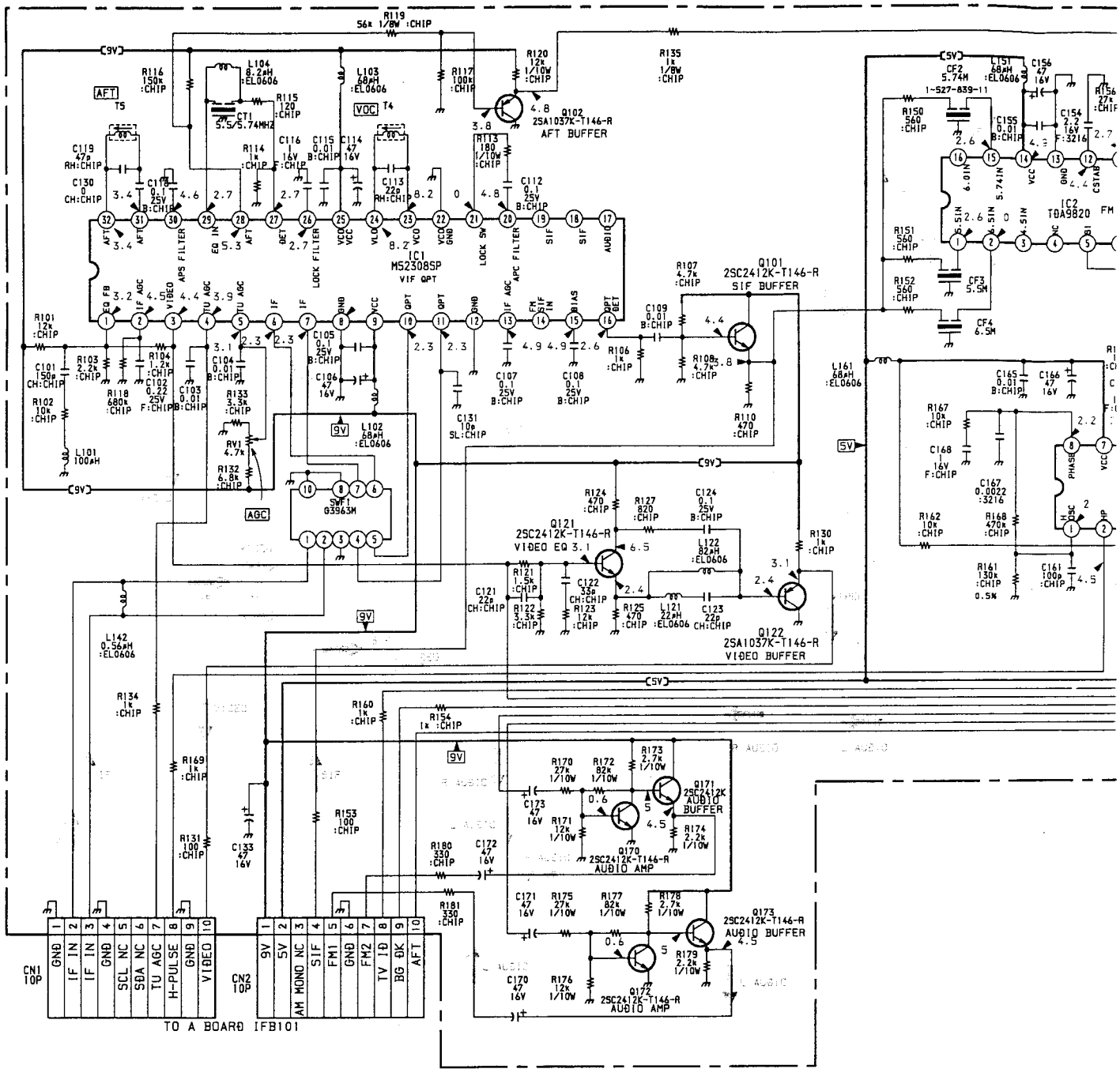
– IF BOARD – (French Model)



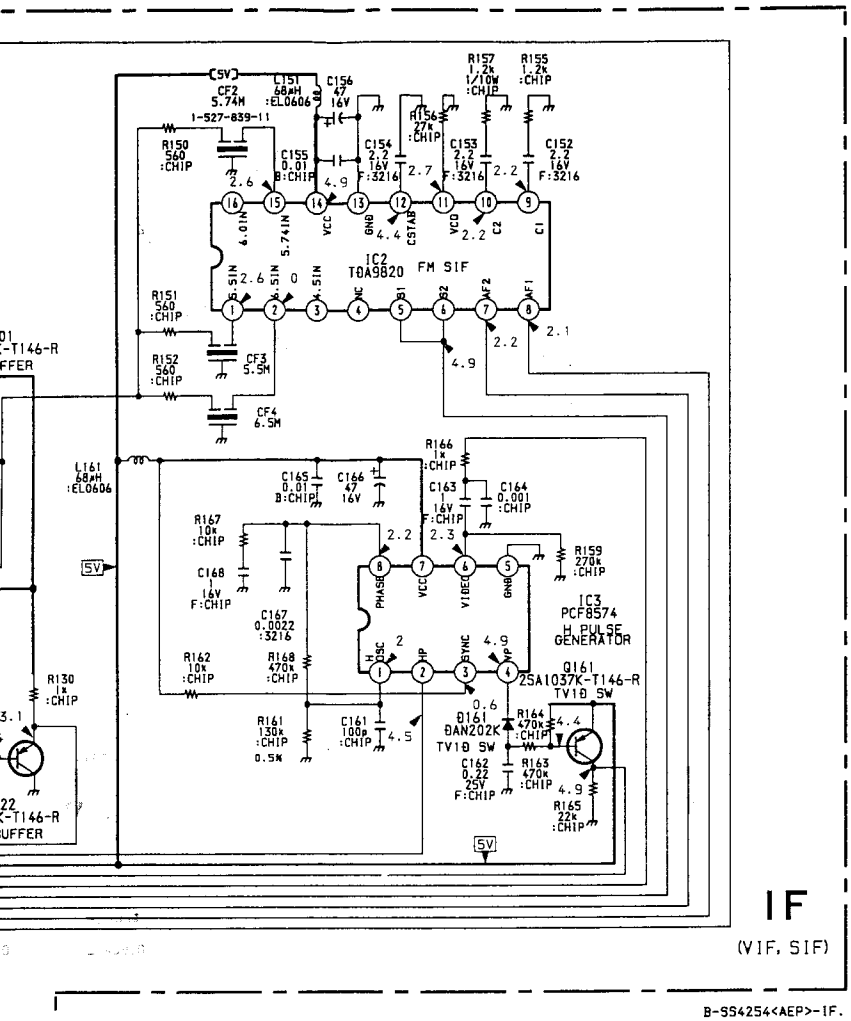
Note :

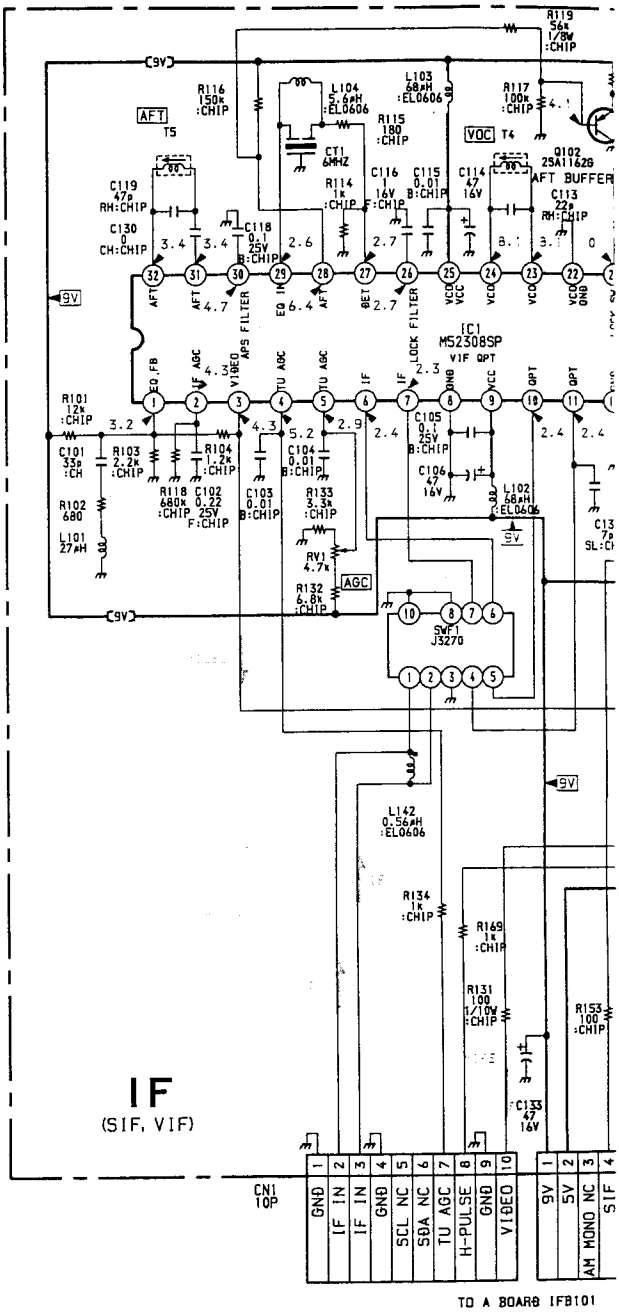
- : Pattern from the side which enables seeing.
- : Pattern of the rear side.

IFH389 (AEP, Italian, Spanish Model)

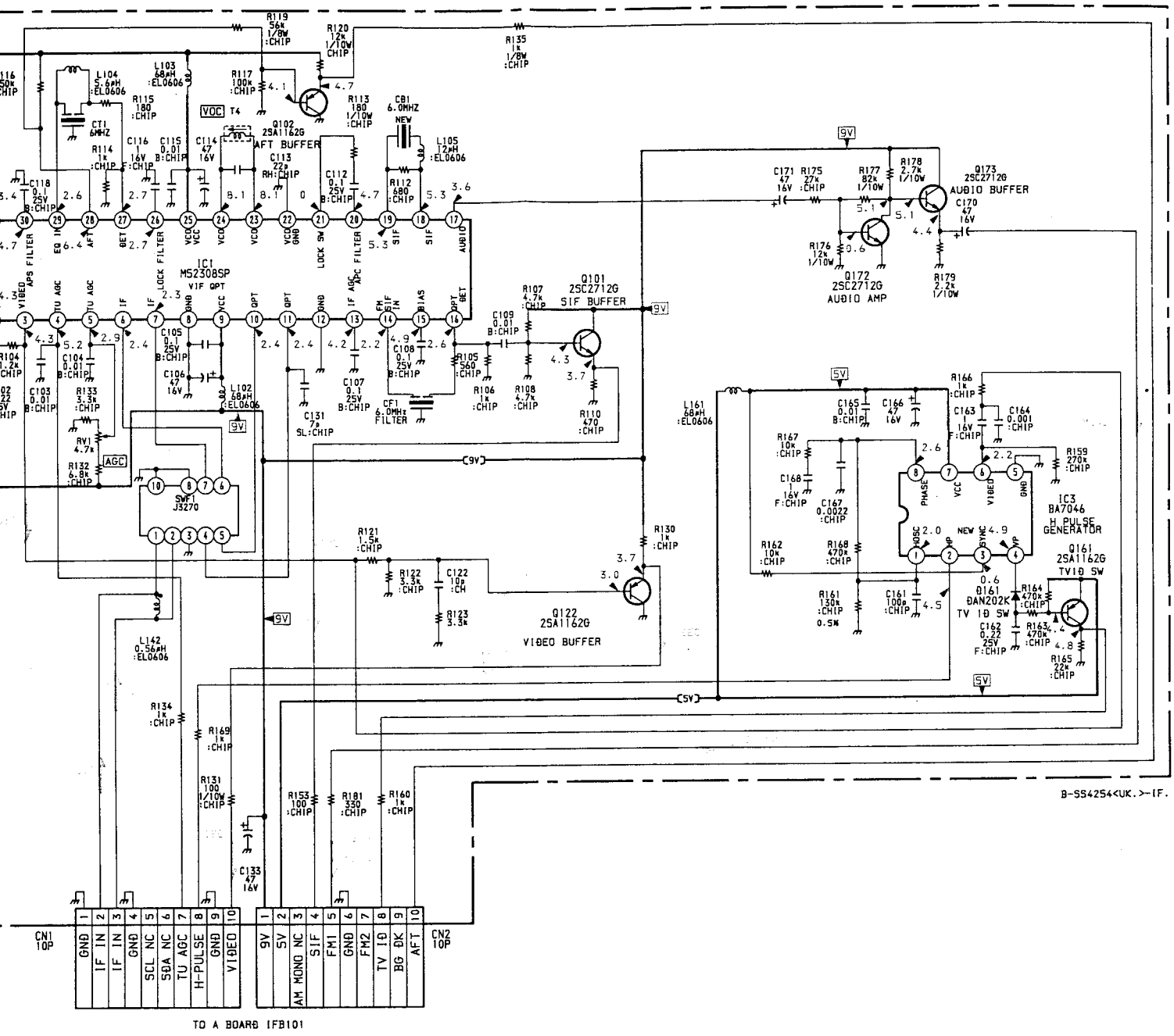


IFH385 (UK Model)





odel)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SIF BUFFER
Q102
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VIDEO BUFFER
Q172
2SC2712G
AUDIO AMP
Q173
2SC2712G
AUDIO BUFFER
IC3
BA7046
H PULSE
GENERATOR
Q161
2SA1162G
TV10 SW
Q161
DAN202K
TV 10 SW
SW1
J3270
L102
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:EL0606
L103
68μH
:EL0606
L104
5.6μH
:EL0606
L105
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L142
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L161
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:EL0606
CF1
6.0MHz
FILTER
CB1
6.0MHz
NEW
9V
5V
AGC
VOC
CN1
10P
CN2
10P
GND
IF IN
IF IN
GND
SCL NC
SDA NC
TU AGC
H-PULSE
GND
VIDEO
9V
5V
AM MONO NC
SIF
FM1
GND
FM2
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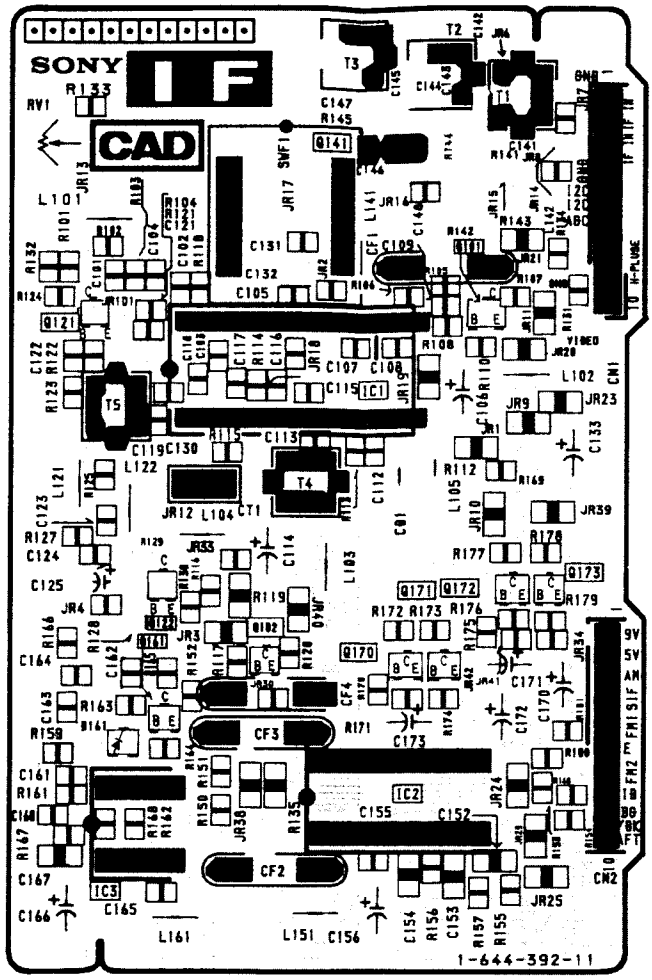
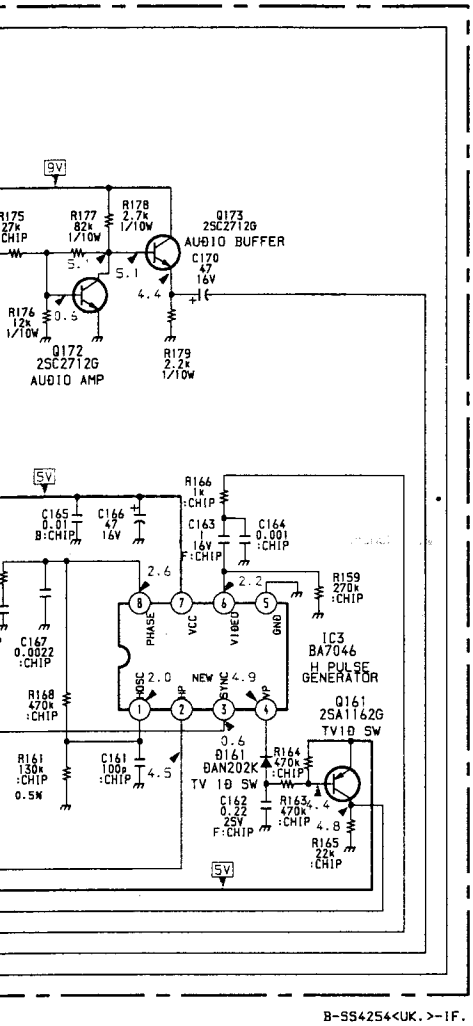
BG DK
AFT
TO A BOARD IFB101
B-SS4254<UK.>-IF.

IF [VIF, SIF]

– IF BOARD – (AEP, Italian, Spanish Model)





B-SS4254<UK.>-IF.

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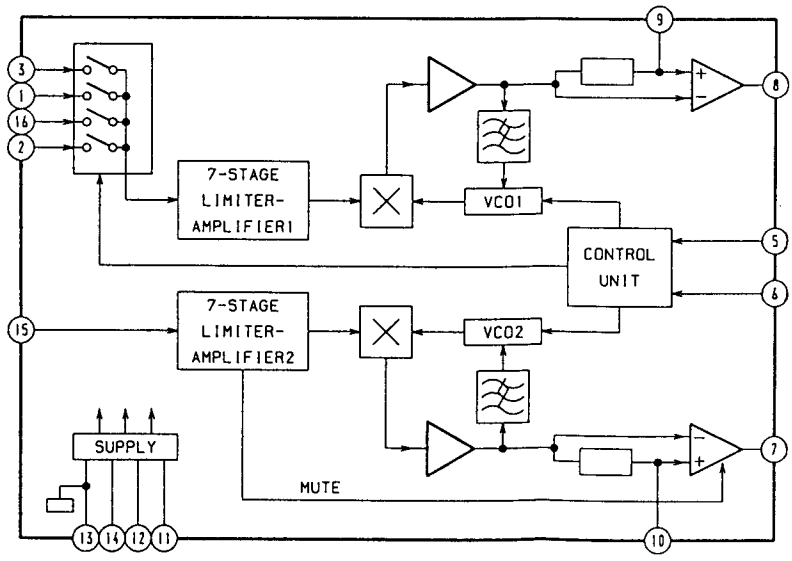

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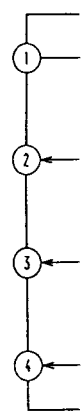

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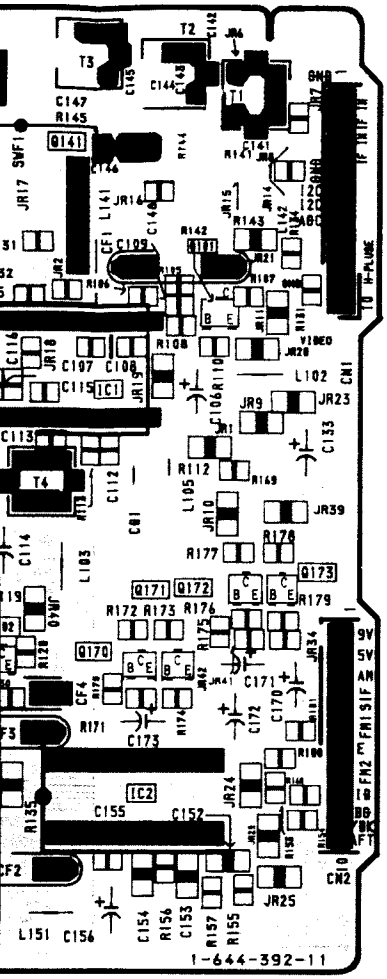

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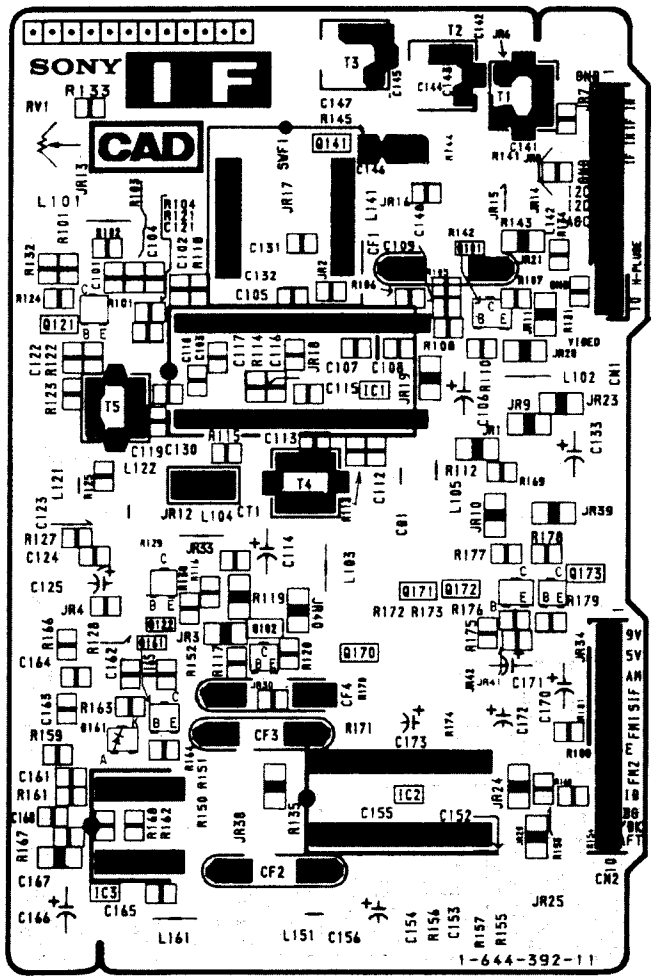
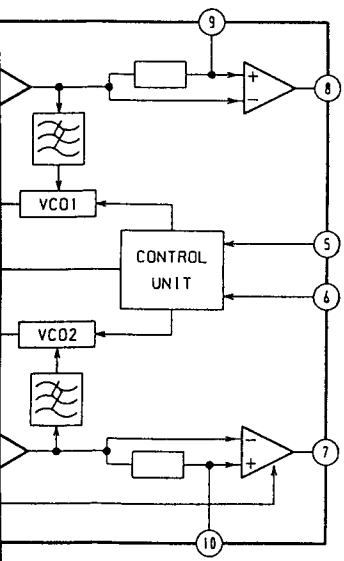


talian, Spanish Model)



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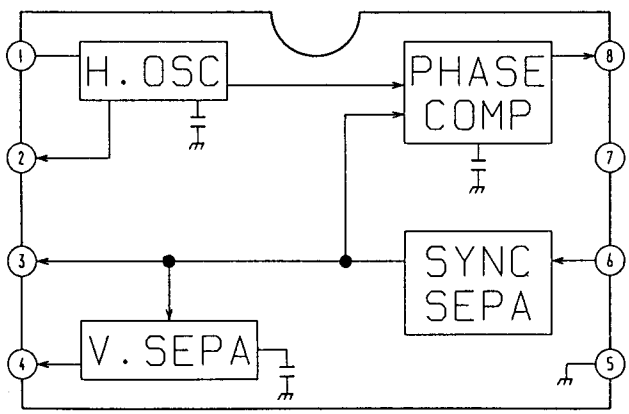
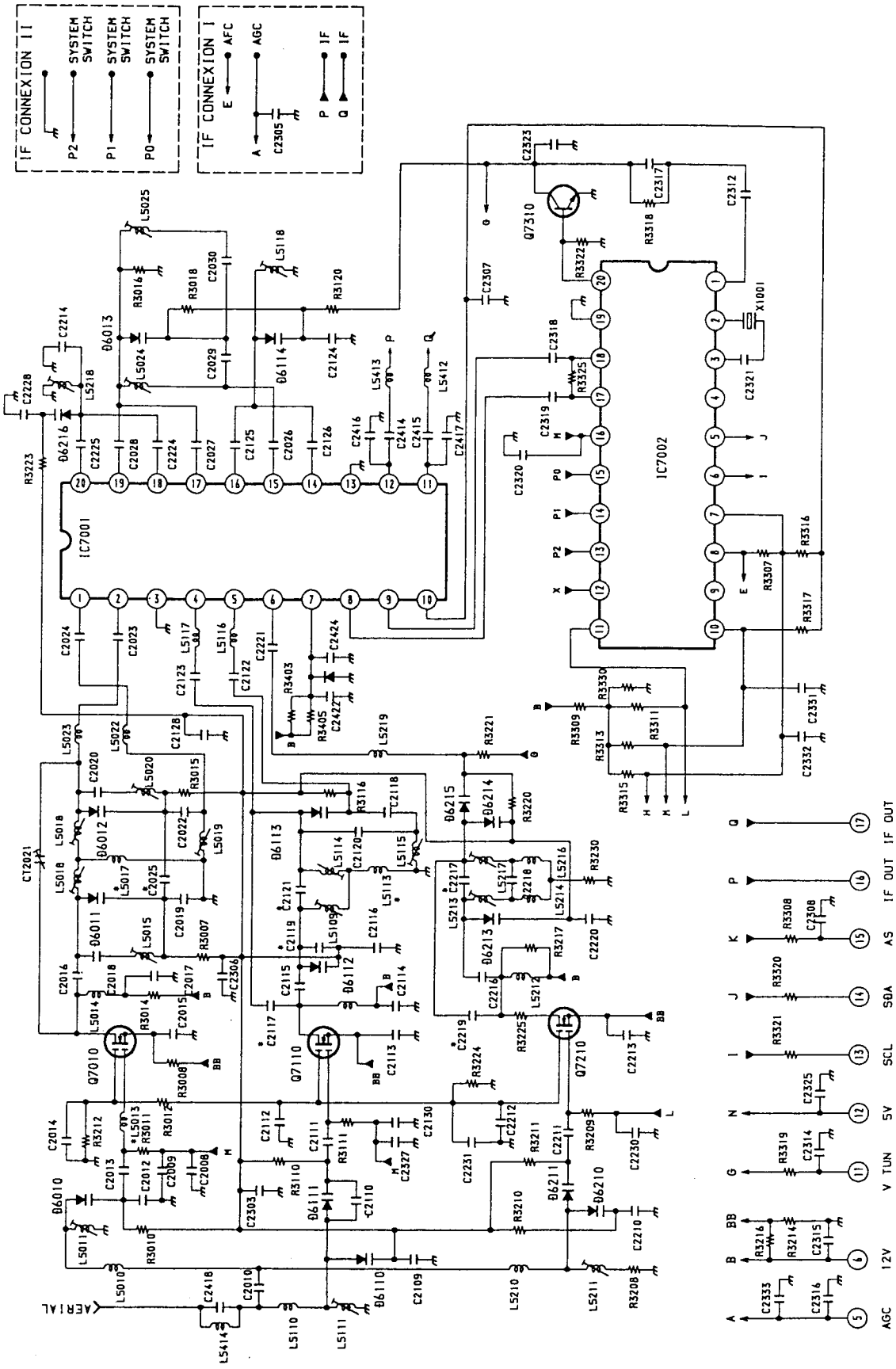


5-4. SCHEMATIC DIAGRAM OF TUNER A BOARD TU101 UV916H



Schematic diagrams

IF boards

5-5. SEMICONDUCTORS

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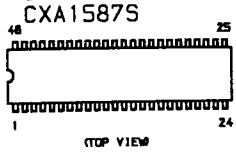
CXA1587S



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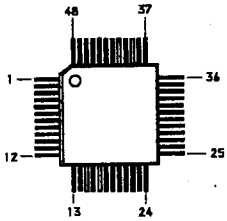

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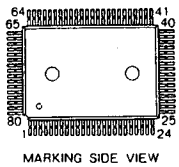

MARKING SIDE VIEW

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LM393P
LM358P
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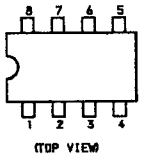
TDA4605-3
TEA2114
μPC358C
μPC393C
X24C16P



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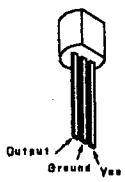
MC78L12ACPRP



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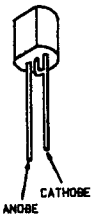

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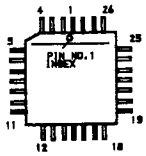

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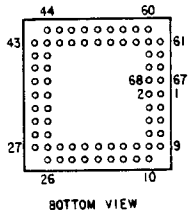

BOTTOM VIEW

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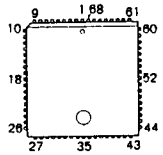

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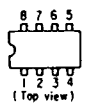

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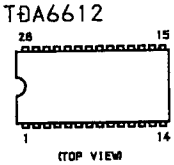

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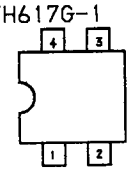

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3.Vout
4.GND

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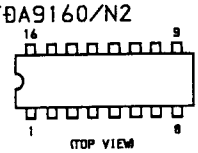

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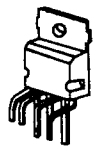

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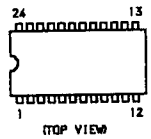

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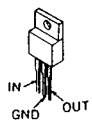

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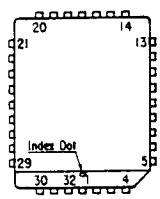

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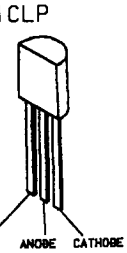

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BF871

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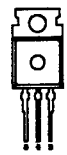

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ΔTA144EK
ΔTA144TK
ΔTC114EK
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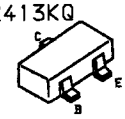

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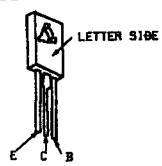

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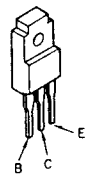

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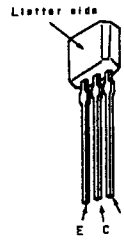

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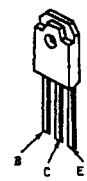

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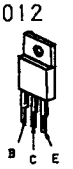

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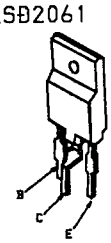

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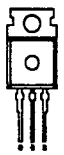

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TA144EK
TA144TK
TC114EK
TC124EK
TC144EK
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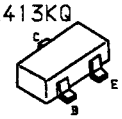

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2SC2688-LK

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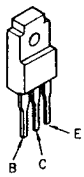

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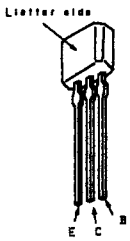

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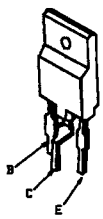

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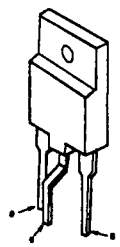

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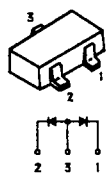

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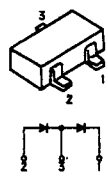
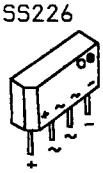
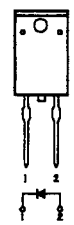


1SS226



ĐSL60



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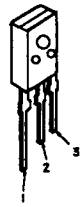

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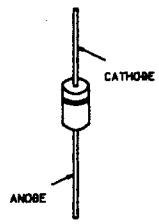
RGP02-20EL-6394
RU30ALFS1
RU3AM



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ERB44-06
GP08Đ
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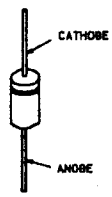
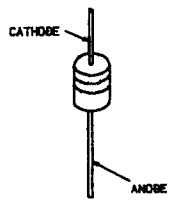
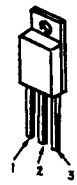
RGP15GPKG23
R2K-V1
1N4148A-T265



ERA85-009
MTZJ-T-77-12B
MTZJ-T-77-13C
MTZJ-T-77-15A
MTZJ-T-77-2.2A
MTZJ-T-77-3.6A
MTZJ-T-77-30B
MTZJ-T-77-33C
MTZJ-T-77-39C
MTZJ-T-77-5.6A
MTZJ-T-77-5.6B
MTZJ-T-77-7.5A
MTZJ-T-77-9.1
MTZN-1013
RĐ12ES-B2
RĐ5.6ES-B1
RĐ5.6ES-B2
RĐ6.2ES-B2
RĐ7.5ES-B2



ESAB92-02



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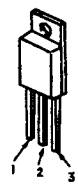
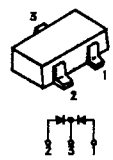
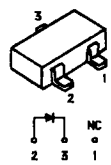


MA152WK



MA3030-H (TK)
MA3039H-TX
MA3047L-TX



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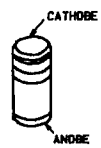

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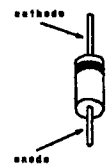
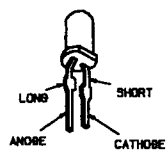
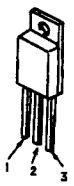


LĐ201VR



ESAB92-02

ESAC92M-02



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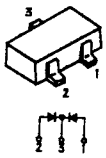
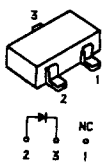


MA3030-H (TK)
MA3039H-TX
MA3047L-TX



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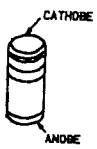

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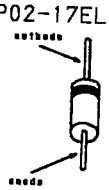

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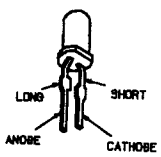
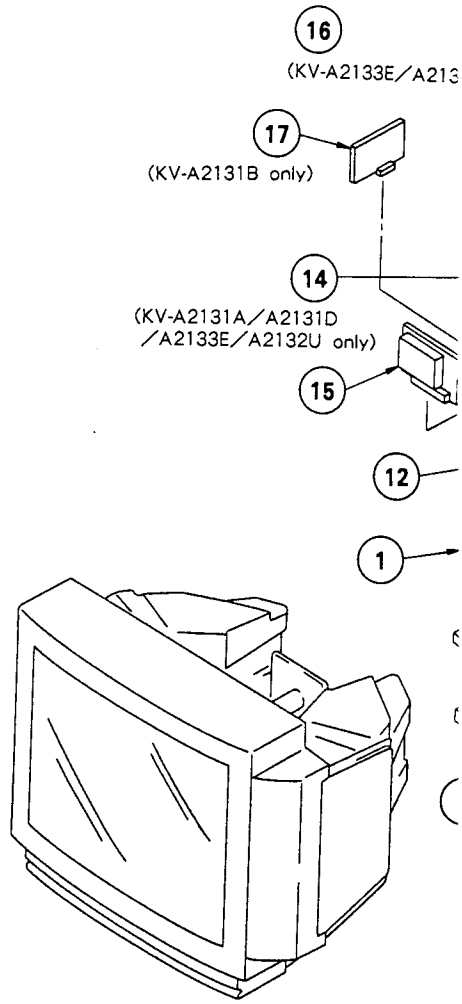


NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " ★ " are not stocked since they are seldom required for routir service. Some delay should be anticipate when ordering these items.

6-1. CHASSIS



REF.NO.	PART NO.	DESCRIPTION
1	*1-648-314-11	H1 BOARD
2	*1-648-475-11	H2 BOARD
3	⚠4-202-486-01	BUTTON, POWER
4	⚠1-571-433-12	SWITCH, PUSH (AC POWER)
5	*A-1624-019-A	F1 BOARD, COMPLETE
6	4-202-376-01	COVER, POWER SWITCH
7	⚠1-590-460-11	CORD, POWER(WITH CONNECT(
		(KV-
	⚠1-590-762-11	CORD, POWER(WITH PLUG) 2.
	⚠1-751-680-11	CORD, POWER(WITH NOISE FI
		2.5A/250V (KV-
8	*A-1624-018-A	F2 BOARD, COMPLETE
9	*A-1642-098-A	D BOARD, COMPLETE
10	⚠1-453-118-11	TRANSFORMER ASSY, FLYBACK
11	*A-1640-110-A	D5 BOARD, COMPLETE

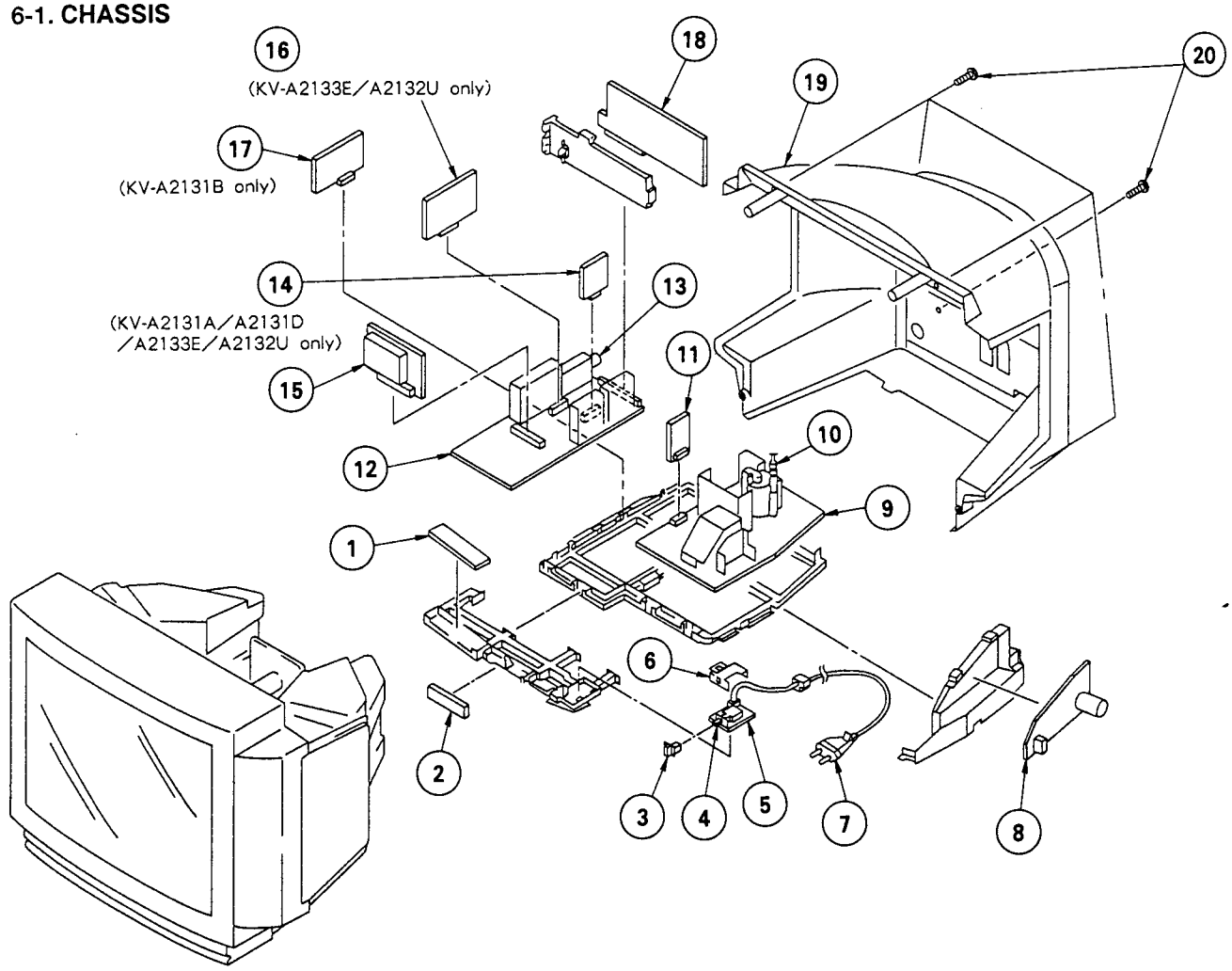
SECTION 6
EXPLODED VIEWS

NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " ★ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

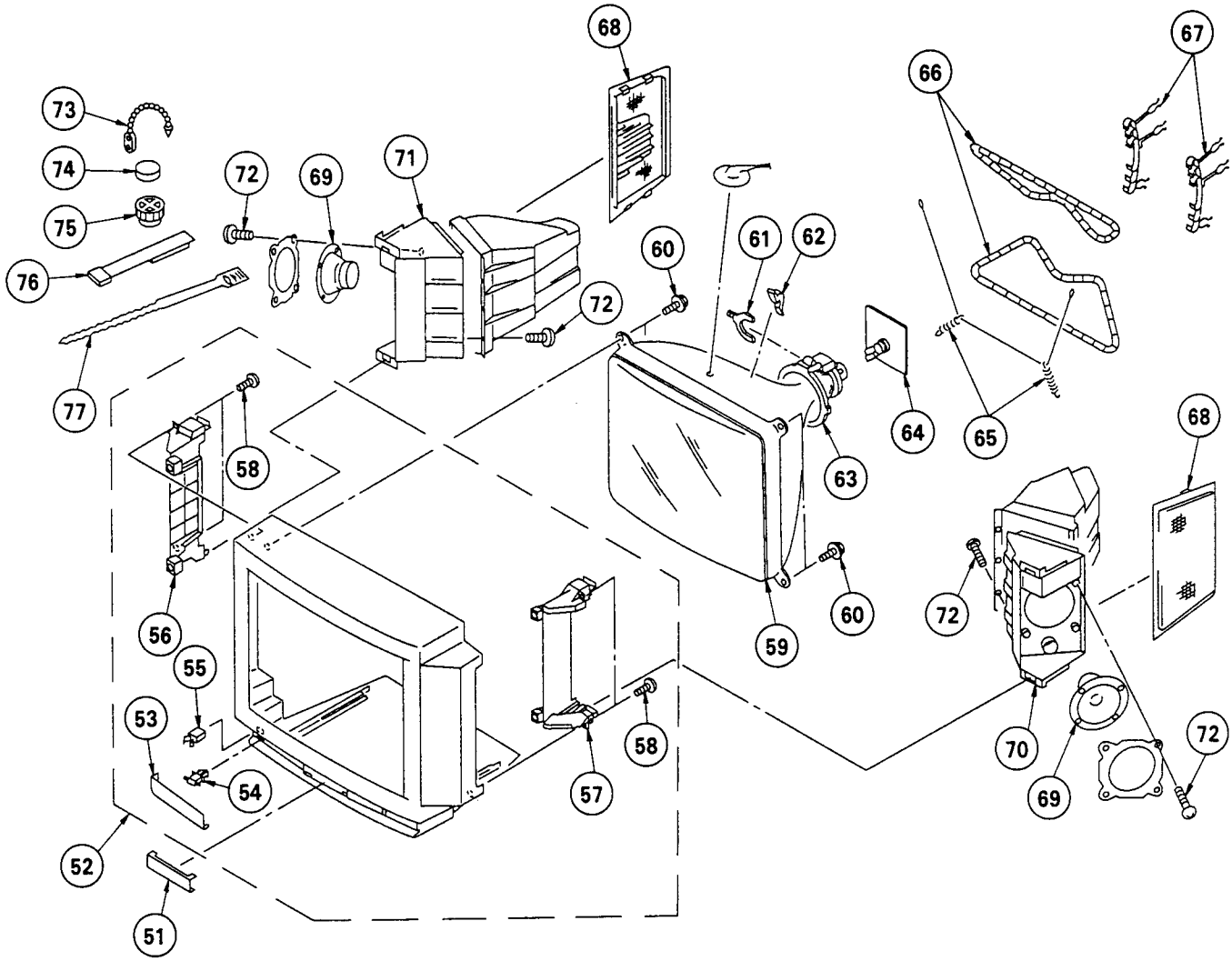
Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

6-1. CHASSIS



REF.NO.	PART NO.	DESCRIPTION	REMARK
1	*1-648-314-11	H1 BOARD	
2	*1-648-475-11	H2 BOARD	
3	⚠4-202-486-01	BUTTON, POWER	
4	⚠1-571-433-12	SWITCH, PUSH (AC POWER)	
5	*A-1624-019-A	F1 BOARD, COMPLETE	
6	4-202-376-01	COVER, POWER SWITCH	
7	⚠1-590-460-11	CORD, POWER(WITH CONNECTOR) 7.0A/250V (KV-A2131B,A2133E)	
	⚠1-590-762-11	CORD, POWER(WITH PLUG) 2.5A/250V (KV-A2132U)	
	⚠1-751-680-11	CORD, POWER(WITH NOISE FILTER) 2.5A/250V (KV-A2131A,A2131D)	
8	*A-1624-018-A	F2 BOARD, COMPLETE	
9	*A-1642-098-A	D BOARD, COMPLETE	
10	⚠1-453-118-11	TRANSFORMER ASSY, FLYBACK (NX-2600A2)	
11	*A-1640-110-A	D5 BOARD, COMPLETE	
12	*A-1632-146-A	A BOARD, COMPLETE (KV-A2131A,A2131D)	
	*A-1632-157-A	A BOARD, COMPLETE (KV-A2131B)	
	*A-1632-158-A	A BOARD, COMPLETE (KV-A2132U)	
	*A-1632-159-A	A BOARD, COMPLETE (KV-A2133E)	
13	⚠1-693-184-11	TUNER (U944C) (KV-A2132U)	
	⚠1-693-185-11	TUNER (UV916H) (KV-A2131A,A2131B,A2131D,A2133E)	
14	*A-1620-049-A	B BOARD, COMPLETE (KV-A2131A,A2131D,A2133E,A2132U)	
15	*A-1635-006-A	M1 BOARD, COMPLETE	
16	*A-1630-168-A	A1 BOARD, COMPLETE (KV-A2132U)	
	*A-1630-170-A	A1 BOARD, COMPLETE (KV-A2133E)	
17	*A-1622-006-A	P1 BOARD, COMPLETE (KV-A2131B)	
18	*A-1651-051-A	J BOARD, COMPLETE	
19	4-041-047-01	COVER, REAR	
20	4-039-358-11	SCREW (4X16), (+) BV TAPPING	

6-2. PICTURE TUBE



The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION	REMARK
51	4-202-492-01	WINDOW, ORNAMENTAL	
52	X-4031-255-1	CABINET ASSY (WITH BEZEL ASSY)	53~58
53	4-202-493-01	DOOR	
54	3-703-035-12	SHAFT, LID	
55	4-392-036-01	CATCHER, PUSH	
56	*4-041-050-01	BRACKET (LEFT), SPEAKER	
57	*4-041-049-01	BRACKET (RIGHT), SPEAKER	
58	4-039-358-01	SCREW (4X16), (+) BV TAPPING	
59	⚠8-738-758-05	PICTURE TUBE (A51JXH61X)	
60	4-036-189-01	SCREW (S), PT	
61	1-452-277-00	MAGNET, BMC	
62	3-704-495-01	SPACER, DY	
63	⚠1-451-295-11	DEFLECTION YOKE (Y21PFA2)	
64	*A-1638-039-A	C BOARD, COMPLETE	
65	4-200-433-01	SPRING, EXTENSION	
66	⚠1-406-828-11	COIL, DEGAUSSING	
67	*4-386-622-01	BAND, DGC	
68	X-4031-254-1	GRILLE ASSY, SPEAKER	
69	1-544-475-21	SPEAKER	
70	*4-031-054-01	BOARD (RIGHT), BAFFLE	
71	*4-031-056-01	BOARD (LEFT), BAFFLE	
72	4-039-358-11	SCREW (4X16), (+) BV TAPPING	
73	4-308-870-00	CLIP, LEAD WIRE	
74	1-452-032-00	MAGNET, DISK; 10MM ϕ	
75	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ϕ	
76	X-4309-608-0	PERMALLOY ASSY, CONVERGENCE	
77	3-701-007-00	BAND, BINDING	

SECTION 7
ELECTRICAL PARTS LIST

B (KV-A2131A/A2131D/ A2133E/A2132U)

NOTE:

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS
- All resistors are in ohms
- F : nonflammable

When indicating parts by reference number, please include the board name.

CAPACITORS
- MF : μF, PF : μμF

COILS
- MMH : mH, UH : μH

REF.NO.	PART NO.	DESCRIPTION			REMARK
	*A-1620-049-A	B BOARD, COMPLETE ********** (KV-A2131A,A2131D,A2133E,A2132U)			
		<CAPACITOR>			
C1301	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C1302	1-126-101-11	ELECT 100MF	20%	16V	
C1303	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C1304	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C1305	1-163-105-00	CERAMIC CHIP 33PF	5%	50V	
C1306	1-163-109-00	CERAMIC CHIP 47PF	5%	50V	
C1307	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C1308	1-163-101-00	CERAMIC CHIP 22PF	5%	50V	
C1309	1-163-101-00	CERAMIC CHIP 22PF	5%	50V	
C1310	1-126-101-11	ELECT 100MF	20%	16V	
C1311	1-163-038-00	CERAMIC CHIP 0.1MF		25V	
C1312	1-163-133-00	CERAMIC CHIP 470PF	5%	50V	
C1313	1-124-917-11	ELECT 33MF	20%	50V	
C1314	1-126-101-11	ELECT 100MF	20%	16V	
C1315	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C1316	1-126-101-11	ELECT 100MF	20%	16V	
C1317	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C1318	1-124-910-11	ELECT 47MF	20%	50V	
C1319	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C1320	1-163-141-00	CERAMIC CHIP 0.001MF	5%	50V	
C1321	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C1322	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C1323	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C1324	1-126-101-11	ELECT 100MF	20%	16V	
C1325	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C1326	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C1327	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C1328	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C1329	1-163-038-00	CERAMIC CHIP 0.1MF		25V	
C1330	1-163-038-00	CERAMIC CHIP 0.1MF		25V	
C1331	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C1332	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C1333	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
		<CONNECTOR>			
CN0302	*1-573-299-11	CONNECTOR, BOARD TO BOARD 10P			
		<DIODE>			
D1301	8-719-400-18	DIODE MA152WK			
		<FILTER>			
FL1301	1-239-550-41	FILTER, LOW PASS			
FL1302	1-239-550-41	FILTER, LOW PASS			
FL1303	1-239-550-41	FILTER, LOW PASS			
FL1304	1-236-164-11	ENCAPSULATED COMPONENT			
		<IC>			
IC1301	8-752-357-88	IC CXD2024Q-TL			
		<COIL>			
L1301	1-408-405-00	INDUCTOR 4.7UH			
L1302	1-408-403-00	INDUCTOR 3.3UH			
L1303	1-408-405-00	INDUCTOR 4.7UH			
L1304	1-408-405-00	INDUCTOR 4.7UH			
		<TRANSISTOR>			
Q1301	8-729-216-22	TRANSISTOR 2SA1162-G			
Q1302	8-729-216-22	TRANSISTOR 2SA1162-G			
Q1303	8-729-216-22	TRANSISTOR 2SA1162-G			
Q1304	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q1305	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q1306	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q1307	8-729-216-22	TRANSISTOR 2SA1162-G			
Q1308	8-729-216-22	TRANSISTOR 2SA1162-G			
Q1310	8-729-216-22	TRANSISTOR 2SA1162-G			
		<RESISTOR>			
R1301	1-216-053-00	METAL GLAZE 1.5K	5%	1/10W	
R1302	1-216-059-00	METAL GLAZE 2.7K	5%	1/10W	
R1303	1-216-043-00	METAL GLAZE 560	5%	1/10W	
R1304	1-216-043-00	METAL GLAZE 560	5%	1/10W	
R1305	1-216-067-00	METAL GLAZE 5.6K	5%	1/10W	
R1306	1-216-073-00	METAL GLAZE 10K	5%	1/10W	
R1307	1-216-069-00	METAL GLAZE 6.8K	5%	1/10W	
R1308	1-216-069-00	METAL GLAZE 6.8K	5%	1/10W	
R1309	1-216-055-00	METAL GLAZE 1.8K	5%	1/10W	
R1310	1-216-295-00	METAL GLAZE 0	5%	1/10W	
R1311	1-216-073-00	METAL GLAZE 10K	5%	1/10W	
R1312	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W	
R1313	1-216-089-91	METAL GLAZE 47K	5%	1/10W	
R1314	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W	
R1315	1-216-049-00	METAL GLAZE 1K	5%	1/10W	
R1316	1-216-071-00	METAL GLAZE 8.2K	5%	1/10W	
R1317	1-216-083-00	METAL GLAZE 27K	5%	1/10W	
R1318	1-216-051-00	METAL GLAZE 1.2K	5%	1/10W	
R1319	1-216-043-00	METAL GLAZE 560	5%	1/10W	
R1320	1-216-067-00	METAL GLAZE 5.6K	5%	1/10W	
R1321	1-216-049-00	METAL GLAZE 1K	5%	1/10W	
R1322	1-216-025-00	METAL GLAZE 100	5%	1/10W	
R1324	1-216-055-00	METAL GLAZE 1.8K	5%	1/10W	

B (KV-A2131A/A2131D/A2133E/A2132U) **P1** (KV-A2131B)

REF.NO.	PART NO.	DESCRIPTION			REMARK
R1325	1-216-043-00	METAL GLAZE	560	5% 1/10W	
R1326	1-216-067-00	METAL GLAZE	5.6K	5% 1/10W	
R1327	1-216-049-00	METAL GLAZE	1K	5% 1/10W	
R1330	1-216-067-00	METAL GLAZE	5.6K	5% 1/10W	
R1331	1-216-049-00	METAL GLAZE	1K	5% 1/10W	
R1332	1-216-653-11	METAL CHIP	1.2K	0.50% 1/10W	
R1333	1-216-666-11	METAL CHIP	4.3K	0.50% 1/10W	
R1334	1-216-635-11	METAL CHIP	220	0.50% 1/10W	
R1335	1-216-637-11	METAL CHIP	270	0.50% 1/10W	
R1336	1-216-657-11	METAL CHIP	1.8K	0.50% 1/10W	
R1337	1-216-663-11	METAL CHIP	3.3K	0.50% 1/10W	
R1338	1-216-657-11	METAL CHIP	1.8K	0.50% 1/10W	
R1339	1-216-295-00	METAL GLAZE	0	5% 1/10W	
R1342	1-216-295-00	METAL GLAZE	0	5% 1/10W	
R1343	1-216-035-00	METAL GLAZE	270	5% 1/10W	

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*A-1622-006-A P1 BOARD, COMPLETE (KV-A2131B)
****

<CAPACITOR>

C1401	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1402	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1403	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C1404	1-163-037-11	CERAMIC CHIP	0.022MF	10%	25V
C1405	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C1406	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C1407	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1408	1-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V
C1409	1-124-903-11	ELECT	1MF	20%	50V
C1410	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1411	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C1412	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1414	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C1416	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C1417	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C1419	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C1420	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1421	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1422	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1423	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1424	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C1425	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C1426	1-163-124-00	CERAMIC CHIP	200PF	5%	50V
C1427	1-124-916-11	ELECT	22MF	20%	50V
C1428	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1430	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1431	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1432	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1433	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1434	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1435	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1437	1-164-343-11	CERAMIC CHIP	0.056MF	10%	25V
C1438	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C1439	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C1440	1-163-245-11	CERAMIC CHIP	56PF	5%	50V
C1441	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C1442	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C1443	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C1444	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C1445	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C1446	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C1447	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1448	1-164-222-11	CERAMIC CHIP	0.22MF		25V
C1449	1-163-257-11	CERAMIC CHIP	180PF	5%	50V
C1450	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C1451	1-163-003-11	CERAMIC CHIP	330PF	10%	50V
C1452	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1453	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1454	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1455	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C1456	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C1457	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C1458	1-164-505-11	CERAMIC CHIP	2.2MF		16V
C1459	1-164-505-11	CERAMIC CHIP	2.2MF		16V
C1460	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1461	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C1462	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C1463	1-126-101-11	ELECT	100MF	20%	16V
C1464	1-126-101-11	ELECT	100MF	20%	16V
C1465	1-126-101-11	ELECT	100MF	20%	16V
C1466	1-126-101-11	ELECT	100MF	20%	16V
C1467	1-126-101-11	ELECT	100MF	20%	16V
C1468	1-164-505-11	CERAMIC CHIP	2.2MF		16V
C1469	1-164-505-11	CERAMIC CHIP	2.2MF		16V
C1471	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1472	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1473	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1481	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C1482	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C1491	1-163-251-11	CERAMIC CHIP	100PF	5%	50V

<CONNECTOR>

CN1514*	1-568-879-11	PIN, CONNECTOR 4P
CN1515*	1-564-516-11	PLUG, CONNECTOR 13P
CN1516*	1-568-879-11	PIN, CONNECTOR 4P
CN1538*	1-573-299-11	CONNECTOR, BOARD TO BOARD 10P

<DIODE>

D1401	8-719-401-41	DIODE MA3051L-TX

<FILTER>

FL1403	1-236-071-11	ENCAPSULATED COMPONENT
FL1404	1-236-071-11	ENCAPSULATED COMPONENT
FL1405	1-236-071-11	ENCAPSULATED COMPONENT
FL1406	1-236-071-11	ENCAPSULATED COMPONENT
FL1407	1-236-071-11	ENCAPSULATED COMPONENT
FL1408	1-236-071-11	ENCAPSULATED COMPONENT

<IC>

IC1401	8-759-073-16	IC TDA9160/N2
IC1402	8-759-086-97	IC TDA4661T/V2
IC1403	8-759-183-56	IC SDA9187-GEG
IC1404	8-759-183-57	IC SDA9188-GEG
IC1405	8-759-046-27	IC SDA9086-3
IC1406	8-759-183-36	IC TDA8443B
IC1410	8-759-037-45	IC MC78L08ACPRP
IC1411	8-759-708-05	IC NJM78L05A

<COIL>

L1401	1-408-418-00	INDUCTOR	56UH
L1405	1-408-407-00	INDUCTOR	6.8UH

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

P1 (KV-A2131B) F2

REF.NO.	PART NO.	DESCRIPTION				REMARK
L1406	1-408-407-00	INDUCTOR	6.8UH			
		<TRANSISTOR>				
Q1401	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1402	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1403	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1404	8-729-216-22	TRANSISTOR 2SA1162-G				
Q1405	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1406	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1407	8-729-216-22	TRANSISTOR 2SA1162-G				
Q1408	8-729-216-22	TRANSISTOR 2SA1162-G				
Q1409	8-729-216-22	TRANSISTOR 2SA1162-G				
Q1413	8-729-216-22	TRANSISTOR 2SA1162-G				
Q1414	8-729-900-53	TRANSISTOR DTC114EK				
Q1416	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1417	8-729-900-53	TRANSISTOR DTC114EK				
Q1419	8-729-900-53	TRANSISTOR DTC114EK				
Q1421	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1422	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1425	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1426	8-729-900-53	TRANSISTOR DTC114EK				
		<RESISTOR>				
JR1401	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R1401	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1402	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1403	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1404	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1405	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1406	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R1407	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1408	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1410	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R1411	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1412	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1413	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1414	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1415	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1416	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1417	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1418	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1419	1-216-027-00	METAL GLAZE	120	5%	1/10W	
R1421	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1422	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R1424	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1425	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1426	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1427	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1429	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R1430	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1431	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1434	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R1435	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R1436	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1437	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1438	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R1439	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1441	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1442	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1443	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1444	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1445	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1446	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R1449	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1450	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1453	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1454	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1455	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1456	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1458	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1462	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1463	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1468	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1469	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1471	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R1481	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1483	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R1484	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1485	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1486	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1487	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1493	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R1494	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1495	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1496	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1497	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1498	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1499	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
		<CRYSTAL>				
X1401	1-567-505-11	OSCILLATOR, CRYSTAL				
X1402	1-567-504-11	OSCILLATOR, CRYSTAL				

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*A-1624-018-A F2 BOARD, COMPLETE
****

		<CAPACITOR>			
C661	⚠ 1-136-519-12	FILM	0.47MF	20%	300V
C662	⚠ 1-136-518-12	FILM	0.33MF	20%	300V
C664	⚠ 1-164-246-61	CERAMIC	0.0022MF	20%	400V
C666	1-124-920-11	ELECT	330MF	20%	50V
C667	1-126-233-11	ELECT	22MF	20%	50V
C672	⚠ 1-161-964-61	CERAMIC	0.0047MF		250V
C673	⚠ 1-161-964-61	CERAMIC	0.0047MF		250V
C674	1-125-318-00	ELECT(BLOCK)	220MF	20%	400V
		<CONNECTOR>			
CN0005	1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P			
CN0007	1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P			
CN0924	*1-568-878-51	PIN, CONNECTOR 3P			
CN0925	*1-695-294-11	PIN, CONNECTOR (PC BOARD) 6P			
CN0929	1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P			
CN0931	⚠ *1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P			
		<DIODE>			
D661	8-719-911-19	DIODE 1SS119			
D663	8-719-510-63	DIODE D4SB60L-F			
D664	8-719-109-89	DIODE RD5.6ESB2			
		<TRANSFORMER>			

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

F2 F1 A1 (KV-A2132U A2133E)

REF.NO.	PART NO.	DESCRIPTION				REMARK
LF661⚠	1-424-688-11	COIL, LINE FILTER				
LF662⚠	1-424-391-11	TRANSFORMER, LINE FILTER				
LF663⚠	1-421-862-11	LFT				
		<TRANSISTOR>				
Q661	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
		<RESISTOR>				
R663 ⚠	1-244-945-91	CARBON	1M	5%	1/2W	
R664 ⚠	1-205-949-11	WIREWOUND	1.8	5%	10W	F
R665 ⚠	1-218-265-91	METAL GLAZE	8.2M	5%	1W	
R666	1-249-405-11	CARBON	100	5%	1/4W	F
R667	1-249-430-11	CARBON	12K	5%	1/4W	
R668	1-249-436-11	CARBON	39K	5%	1/4W	
R669 ⚠	1-205-949-11	WIREWOUND	1.8	5%	10W	F
R671	1-249-417-11	CARBON	1K	5%	1/4W	F
		<RELAY>				
RY661⚠	1-515-720-31	RELAY				
		<THERMISTOR>				
THP661⚠	1-809-827-11	THERMISTOR, POSITIVE				
**********						
	*A-1624-019-A	F1 BOARD, COMPLETE				
		**********				
		<CONNECTOR>				
CN0003⚠	*1-580-844-11	PIN, CONNECTOR (POWER)				
CN0831⚠	*1-695-292-11	PIN, CONNECTOR (POWER)				
		<FUSE>				
F651 ⚠	1-576-232-21	FUSE (H.B.C.) 5A/250V				
	1-533-230-11	HOLDER, FUSE; F651				
		<SWITCH>				
S651 ⚠	1-571-433-12	SWITCH, PUSH (AC POWER)				
**********						
	*A-1630-168-A	A1 BOARD, COMPLETE (KV-A2132U)				
		**********				
	*A-1630-170-A	A1 BOARD, COMPLETE (KV-A2133E)				
		**********				
		<CAPACITOR>				
C1101	1-126-101-11	ELECT	100MF	20%	16V	
C1102	1-126-101-11	ELECT	100MF	20%	16V	
C1103	1-163-077-00	CERAMIC CHIP	0.1MF		50V	
C1104	1-163-077-00	CERAMIC CHIP	0.1MF	10%	25V	
C1105	1-164-489-11	CERAMIC CHIP	0.22MF	10%	16V	
C1106	1-163-383-91	CERAMIC CHIP	180PF	5%	50V	
C1107	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C1108	1-163-059-00	CERAMIC CHIP	0.01MF		50V	
C1109	1-163-033-00	CERAMIC CHIP	0.022MF		50V	
C1110	1-164-336-11	CERAMIC CHIP	0.33MF		25V	
C1111	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C1112	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C1113	1-124-477-11	ELECT	47MF	20%	16V	
C1114	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C1115	1-124-477-11	ELECT	47MF	20%	16V	
C1116	1-106-228-00	MYLAR	0.22MF	10%	100V	
C1117	1-163-081-00	CERAMIC CHIP	0.22MF		25V	
C1118	1-163-113-00	CERAMIC CHIP	68PF	5%	50V	
C1119	1-163-129-00	CERAMIC CHIP	330PF	5%	50V	
C1120	1-163-193-00	CERAMIC CHIP	330PF	5%	50V	
C1121	1-163-113-00	CERAMIC CHIP	68PF	5%	50V	
C1122	1-163-081-00	CERAMIC CHIP	0.22MF		25V	
C1123	1-106-228-00	MYLAR	0.22MF	10%	100V	
C1124	1-124-477-11	ELECT	47MF	20%	16V	
C1125	1-124-477-11	ELECT	47MF	20%	16V	
C1126	1-163-077-00	CERAMIC CHIP	0.1MF	10%	25V	
C1127	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C1128	1-124-477-11	ELECT	47MF	20%	16V	
C1129	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C1130	1-163-205-00	CERAMIC CHIP	0.001MF	10%	50V	
C1131	1-163-059-00	CERAMIC CHIP	0.01MF		50V	
C1132	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C1133	1-124-907-11	ELECT	10MF	20%	50V	
C1134	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C1135	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C1136	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	
C1137	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C1138	1-163-105-00	CERAMIC CHIP	33PF	5%	50V	
C1139	1-163-105-00	CERAMIC CHIP	33PF	5%	50V	
C1140	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	
C1141	1-163-205-00	CERAMIC CHIP	0.001MF	5%	50V	
C1142	1-163-057-00	CERAMIC CHIP	0.0068MF		50V	
C1143	1-163-003-11	CERAMIC CHIP	330PF	10%	50V	
C1144	1-163-121-00	CERAMIC CHIP	150PF	5%	50V	
C1145	1-163-121-00	CERAMIC CHIP	150PF	5%	50V	
C1146	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C1147	1-124-477-11	ELECT	47MF	20%	16V	
C1148	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C1149	1-124-477-11	ELECT	47MF	20%	16V	
C1150	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C1151	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C1152	1-124-477-11	ELECT	47MF	20%	16V	
C1153	1-163-087-00	CERAMIC CHIP	4PF	0.25PF	50V	
C1154	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C1155	1-124-477-11	ELECT	47MF	20%	16V	
C1156	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C1157	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C1158	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C1159	1-163-243-11	CERAMIC CHIP	47PF	5%	50V	(KV-A2132U)
		<FILTER>				
BP1101	1-236-238-12	FILTER, BAND PASS (KV-A2132U)				
	1-239-047-11	FILTER, BAND PASS (KV-A2133E)				
CF1101	1-409-333-00	TRAP, CERAMIC (6.0MHZ) (KV-A2132U)				
CF1102	1-404-134-00	TRAP, CERAMIC (5.5MHZ) (KV-A2133E)				
		<CONNECTOR>				
CN0201	1-695-300-11	CONNECTOR, BOARD TO BOARD 20P				
		<DIODE>				

A1 (KV-A2132U A2133E) A

REF.NO.	PART NO.	DESCRIPTION				REMARK
D1101	8-719-104-34	DIODE 1S2836				
D1102	8-719-027-70	DIODE 1SV217-TPH3				
D1103	8-719-820-71	DIODE 1SV214				
		<FERRITE BEAD>				
FB1101	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH				
FB1102	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH				
FB1103	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH				
FB1104	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH				
FB1105	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH				
		<IC>				
IC1101	8-759-511-88	IC TDA8732				
IC1102	8-759-184-28	IC SAA7282-ZP				
		<COIL>				
L1101	1-408-405-00	INDUCTOR	4.7UH			
L1102	1-408-405-00	INDUCTOR	4.7UH			
L1103	1-410-119-11	INDUCTOR	1MMH			
L1104	1-410-119-11	INDUCTOR	1MMH			
L1105	1-408-605-21	INDUCTOR	1MMH			(KV-A2132U)
		<TRANSISTOR>				
Q1101	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1102	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1103	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1104	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1105	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1106	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1107	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1108	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
		<RESISTOR>				
JR1101	1-216-296-91	METAL GLAZE	0	5%	1/8W	(KV-A2133E)
JR1102	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR1103	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR1104	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW1101	1-535-143-31	LEAD, JUMPER (15.0MM)				
JW1102	1-535-303-00	LEAD, JUMPER (10.0MM)				
JW1103	1-535-303-00	LEAD, JUMPER (10.0MM)				
JW1104	1-535-143-31	LEAD, JUMPER (15.0MM)				
R1101	1-216-188-00	METAL GLAZE	390	5%	1/8W	
R1102	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1103	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1104	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1105	1-216-005-00	METAL GLAZE	15	5%	1/10W	
R1106	1-216-185-00	METAL GLAZE	300	5%	1/8W	
R1107	1-216-042-00	METAL GLAZE	510	5%	1/10W	
R1108	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R1109	1-216-202-00	METAL GLAZE	1.5K	5%	1/8W	
R1110	1-216-196-00	METAL GLAZE	820	5%	1/8W	
R1111	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1112	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R1113	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R1114	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R1115	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R1116	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1117	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1118	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1119	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1120	1-216-232-00	METAL GLAZE	27K	5%	1/8W	
R1121	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1122	1-216-158-00	METAL GLAZE	22	5%	1/8W	
R1123	1-216-158-00	METAL GLAZE	22	5%	1/8W	
R1124	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1125	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1126	1-216-218-00	METAL GLAZE	6.8K	5%	1/8W	
R1127	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1128	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1129	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1130	1-216-246-91	METAL GLAZE	100K	5%	1/8W	
R1131	1-216-218-00	METAL GLAZE	6.8K	5%	1/8W	
R1132	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1133	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1134	1-216-212-00	METAL GLAZE	3.9K	5%	1/8W	
R1135	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1136	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1137	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R1138	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1139	1-216-005-00	METAL GLAZE	15	5%	1/10W	
R1140	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1141	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1142	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1143	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1144	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1145	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R1146	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1147	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1148	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1149	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R1150	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1151	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1152	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1153	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1154	1-216-041-00	METAL GLAZE	470	5%	1/10W	
		<CRYSTAL>				
X1101	1-579-689-21	VIBRATOR, CRYSTAL				
X1102	1-579-282-21	VIBRATOR, CRYSTAL				(KV-A2133E)
X1102	1-579-283-11	VIBRATOR, CRYSTAL				(KV-A2132U)
		**********				
	*A-1632-146-A	A BOARD, COMPLETE				(KV-A2131A,A2131D)
		**********				
	*A-1632-157-A	A BOARD, COMPLETE				(KV-A2131B)
		**********				
	*A-1632-158-A	A BOARD, COMPLETE				(KV-A2132U)
		**********				
	*A-1632-159-A	A BOARD, COMPLETE				(KV-A2133E)
		**********				
	4-200-001-01	HOLDER, IC				
	4-201-023-01	SPACER, INSULATING				
	4-812-134-00	RIVET NYLON, 3.5				
		<CAPACITOR>				
C071	1-126-108-11	ELECT	56MF	20%	16V	
C072	1-124-120-11	ELECT	220MF	20%	16V	
C074	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C102	1-126-103-11	ELECT	470MF	20%	16V	
C103	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C104	1-124-910-11	ELECT	47MF	20%	50V	

REF.NO.	PART NO.	DESCRIPTION			REMARK
C105	1-124-916-11	ELECT	22MF	20%	50V
C106	1-124-927-11	ELECT	4.7MF	20%	50V
C110	1-124-478-11	ELECT	100MF	20%	25V
C120	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C201	1-130-489-00	FILM	0.033MF	5%	50V
C202	1-130-489-00	FILM	0.033MF	5%	50V
C203	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C204	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C205	1-124-907-11	ELECT	10MF	20%	50V
C206	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C207	1-137-613-11	FILM	0.0018MF	2%	100V
C208	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C209	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C210	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C213	1-163-023-00	CERAMIC CHIP	0.015MF	10%	50V
C214	1-163-023-00	CERAMIC CHIP	0.015MF	10%	50V
C215	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C216	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C217	1-124-925-11	ELECT	2.2MF	20%	50V
C218	1-124-925-11	ELECT	2.2MF	20%	50V
C219	1-163-011-11	CERAMIC CHIP	0.0015MF	10%	50V
C220	1-163-011-11	CERAMIC CHIP	0.0015MF	10%	50V
C221	1-124-925-11	ELECT	2.2MF	20%	50V
C222	1-124-925-11	ELECT	2.2MF	20%	50V
C223	1-136-177-00	FILM	1MF	5%	50V
C224	1-136-177-00	FILM	1MF	5%	50V
C225	1-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V
C226	1-163-007-11	CERAMIC CHIP	680PF	10%	50V
C227	1-124-907-11	ELECT	10MF	20%	50V
C228	1-124-907-11	ELECT	10MF	20%	50V
C229	1-124-478-11	ELECT	100MF	20%	25V
C230	1-124-478-11	ELECT	100MF	20%	25V
C231	1-164-346-11	CERAMIC CHIP	1MF		16V
C232	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C233	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C234	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C235	1-130-772-00	FILM	0.22MF	5%	63V
C236	1-124-618-11	ELECT	2200MF	20%	35V
C237	1-124-618-11	ELECT	2200MF	20%	35V
C238	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C239	1-130-772-00	FILM	0.22MF	5%	63V
C240	1-124-916-11	ELECT	22MF	20%	50V
C241	1-124-916-11	ELECT	22MF	20%	50V
C242	1-124-903-11	ELECT	1MF	20%	50V
C244	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C248	1-163-185-00	CERAMIC CHIP	150PF	5%	50V
C249	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C251	1-126-320-11	ELECT	10MF	20%	16V
C254	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C255	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C256	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C257	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C301	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C302	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C303	1-164-337-11	CERAMIC CHIP	2.2MF		16V
C304	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C305	1-163-096-00	CERAMIC CHIP	13PF	5%	50V
C306	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C307	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C308	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C309	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C310	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C311	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C312	1-124-910-11	ELECT	47MF	20%	50V
C313	1-163-077-00	CERAMIC CHIP	0.1MF		50V
C314	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C315	1-124-910-11	ELECT	47MF	20%	50V
C316	1-163-077-00	CERAMIC CHIP	0.1MF		50V
C317	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C318	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C319	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C320	1-124-910-11	ELECT	47MF	20%	50V
C321	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C322	1-124-916-11	ELECT	22MF	20%	50V
C323	1-163-135-00	CERAMIC CHIP	560PF	5%	50V
C324	1-124-910-11	ELECT	47MF	20%	50V
C325	1-163-111-00	CERAMIC CHIP	56PF	5%	50V
C341	1-163-077-00	CERAMIC CHIP	0.1MF	10%	25V
C342	1-163-077-00	CERAMIC CHIP	0.1MF	10%	25V
C343	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C344	1-162-638-11	CERAMIC CHIP	1MF		16V
C345	1-164-346-11	CERAMIC CHIP	1MF		16V
C347	1-162-638-11	CERAMIC CHIP	1MF		16V
C348	1-164-346-11	CERAMIC CHIP	1MF		16V
C349	1-164-346-11	CERAMIC CHIP	1MF		16V
C350	1-124-907-11	ELECT	10MF	20%	50V
C351	1-124-443-00	ELECT	100MF	20%	10V
C353	1-164-346-11	CERAMIC CHIP	1MF		16V
C354	1-164-346-11	CERAMIC CHIP	1MF		16V
C355	1-162-638-11	CERAMIC CHIP	1MF		16V
C356	1-164-489-11	CERAMIC CHIP	0.22MF	10%	16V
C357	1-164-299-11	CERAMIC CHIP	0.22MF	10%	25V
C358	1-164-299-11	CERAMIC CHIP	0.22MF	10%	25V
C359	1-124-907-11	ELECT	10MF	20%	50V
C361	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C362	1-130-772-00	FILM	0.22MF	5%	63V
C363	1-124-907-11	ELECT	10MF	20%	50V
C365	1-124-120-11	ELECT	220MF	20%	16V
C366	1-124-903-11	ELECT	1MF	20%	50V
C368	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C369	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C401	1-164-005-11	CERAMIC CHIP	0.47MF		16V
C402	1-124-917-11	ELECT	33MF	20%	50V
C403	1-162-637-11	CERAMIC CHIP	0.47MF		16V
C411	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C412	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C421	1-124-910-11	ELECT	47MF	20%	50V
C422	1-124-910-11	ELECT	47MF	20%	50V
C423	1-101-004-00	CERAMIC	0.01MF		50V
C424	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C425	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C426	1-124-910-11	ELECT	47MF	20%	50V
C427	1-164-346-11	CERAMIC CHIP	1MF		16V
C428	1-164-346-11	CERAMIC CHIP	1MF		16V
C429	1-124-119-00	ELECT	330MF	20%	16V
C574	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C575	1-164-299-11	CERAMIC CHIP	0.22MF	10%	25V
C576	1-163-075-00	CERAMIC CHIP	0.047MF	10%	25V
C581	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C582	1-124-916-11	ELECT	22MF	20%	50V
C583	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C585	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C586	1-163-063-00	CERAMIC CHIP	0.022MF	10%	50V
C587	1-124-903-11	ELECT	1MF	20%	50V
C588	1-164-346-11	CERAMIC CHIP	1MF		16V
C589	1-126-103-11	ELECT	470MF	20%	16V
C590	1-124-916-11	ELECT	22MF	20%	50V

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Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
C591	1-124-925-11	ELECT	2.2MF	20%	50V	
C592	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V	
C593	1-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V	
C595	1-163-109-00	CERAMIC CHIP	47PF	5%	50V	
C599	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C644	1-124-598-11	ELECT	22MF	20%	25V	
C681	1-124-478-11	ELECT	100MF	20%	25V	
C682	1-126-516-11	ELECT	120MF	20%	16V	
C683	1-124-478-11	ELECT	100MF	20%	25V	
C684	1-124-478-11	ELECT	100MF	20%	25V	
C685	1-124-478-11	ELECT	100MF	20%	25V	
C686	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
		<FILTER>				
CF581	1-577-611-11	OSCILALTOR, CERAMIC				
		<CONNECTOR>				
CN0001*	1-568-880-51	PIN, CONNECTOR 5P				
CN0101	1-695-297-11	CONNECTOR, BOARD TO BOARD 20P (KV-A2133E,A2132U)				
CN0102	1-573-296-11	CONNECTOR, BOARD TO BOARD 10P (KV-A2131A,A2131D,A2133E,A2132U)				
CN0103*	1-564-511-11	PLUG, CONNECTOR 8P				
CN0104*	1-564-511-11	PLUG, CONNECTOR 8P				
CN0105*	1-568-880-51	PIN, CONNECTOR 5P				
CN0106*	1-568-880-51	PIN, CONNECTOR 5P				
CN0107*	1-568-879-11	PIN, CONNECTOR 4P				
CN0108*	1-568-878-51	PIN, CONNECTOR 3P				
CN0109	1-695-299-11	CONNECTOR, BOARD TO BOARD 50P				
CN0110*	1-568-882-51	PIN, CONNECTOR 7P				
CN0113	1-695-298-11	CONNECTOR, BOARD TO BOARD 40P				
CN0114*	1-568-879-11	PIN, CONNECTOR 4P (KV-A2131B)				
CN0115*	1-564-516-11	PLUG, CONNECTOR 13P (KV-A2131B)				
CN0116*	1-568-879-11	PIN, CONNECTOR 4P (KV-A2131B)				
CN0119*	1-568-879-11	PIN, CONNECTOR 4P				
CN5108*	1-564-513-11	PLUG, CONNECTOR 10P				
		<DIODE>				
D068	8-719-104-34	DIODE 1S2836				
D069	8-719-104-34	DIODE 1S2836				
D071	8-719-109-89	DIODE RD5.6ESB2				
D073	8-719-109-89	DIODE RD5.6ESB2				
D075	8-719-400-18	DIODE MA152WK				
D077	8-719-400-18	DIODE MA152WK				
D078	8-719-109-89	DIODE RD5.6ESB2				
D079	8-719-109-89	DIODE RD5.6ESB2				
D101	8-719-982-27	DIODE MTZJ-33C				
D206	8-719-400-18	DIODE MA152WK				
D207	8-719-921-89	DIODE MTZJ-13C				
D208	8-719-911-19	DIODE 1SS119				
D209	8-719-911-19	DIODE 1SS119				
D210	8-719-911-19	DIODE 1SS119				
D211	8-719-911-19	DIODE 1SS119				
D212	8-719-911-19	DIODE 1SS119				
D213	8-719-400-18	DIODE MA152WK				
D214	8-719-800-76	DIODE 1SS226				
D301	8-719-400-18	DIODE MA152WK				
D302	8-719-104-34	DIODE 1S2836				
D304	8-719-109-89	DIODE RD5.6ESB2				
D305	8-719-400-18	DIODE MA152WK				
D306	8-719-400-18	DIODE MA152WK				
D307	8-719-400-18	DIODE MA152WK				
D308	8-719-800-76	DIODE 1SS226				
D311	8-719-800-76	DIODE 1SS226				
D312	8-719-104-34	DIODE 1S2836				
D313	8-719-400-18	DIODE MA152WK				
D381	8-719-110-03	DIODE RD7.5ESB2				
D401	8-719-921-69	DIODE MTZJ-9.1				
D403	8-719-921-69	DIODE MTZJ-9.1				
D405	8-719-921-69	DIODE MTZJ-9.1				
D406	8-719-921-69	DIODE MTZJ-9.1				
D407	8-719-921-69	DIODE MTZJ-9.1				
D571	8-719-800-76	DIODE 1SS226				
D681	8-719-921-75	DIODE MTZN-10B				
D683	8-719-104-34	DIODE 1S2836				
		<IC>				
IC072	8-759-184-27	IC ST24C16CB1				
IC201	8-759-073-30	IC TDA6612 (KV-A2131A,A2131B,A2131D,A2133E)				
	8-759-073-31	IC TDA6622 (KV-A2132U)				
IC202	8-759-502-21	IC TDA2822M				
IC251	8-759-072-99	IC TDA2052				
IC261	8-759-072-99	IC TDA2052				
IC301	8-759-189-90	IC TDA9145/N2B				
IC302	8-759-084-91	IC TDA4661/V2				
IC304	8-752-056-54	IC CXA1587S				
IC401	8-752-062-86	IC CXA1545AS				
IC402	8-759-073-00	IC TEA2114				
IC681	8-759-072-98	IC TDA8138A				
IC684	8-759-701-59	IC NJM78M09FA				
IC685	8-759-510-52	IC TEA7605				
		<IF BLOCK>				
IFB101	1-466-733-11	IF BLOCK (IFH-389) (KV-A2131A,A2131D,A2133E)				
	1-466-734-11	IF BLOCK (IFH-395) (KV-A2132U)				
	1-466-735-11	IF BLOCK (IFH-389F) (KV-A2131B)				
		<COIL>				
L101	1-412-546-41	INDUCTOR	560UH			
L102	1-408-413-00	INDUCTOR	22UH			
L201	1-407-500-00	INDUCTOR	4.7MMH			
L306	1-408-405-00	INDUCTOR	4.7UH			
L307	1-408-405-00	INDUCTOR	4.7UH			
L309	1-408-411-00	INDUCTOR	15UH			
L310	1-410-396-41	FERRITE BEAD INDUCTOR	0.45UH			
L575	1-408-397-00	INDUCTOR	1UH			
L611	1-412-539-41	INDUCTOR	150UH			
L681	1-412-539-41	INDUCTOR	150UH			
		<IC LINK>				
PS681⚠	1-532-605-91	LINK, IC 0.4A				
PS682⚠	1-532-605-91	LINK, IC 0.4A				
		<TRANSISTOR>				
Q071	8-729-901-05	TRANSISTOR DTA124EK				
Q101	8-729-216-22	TRANSISTOR 2SA1162-G				
Q102	8-729-901-00	TRANSISTOR DTC124EK				
Q103	8-729-900-53	TRANSISTOR DTC114EK				
Q201	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q202	8-729-120-28	TRANSISTOR 2SC1623-L5L6				

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q203	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q204	8-729-216-22	TRANSISTOR 2SA1162-G	
Q205	8-729-216-22	TRANSISTOR 2SA1162-G	
Q206	8-729-216-22	TRANSISTOR 2SA1162-G	
Q207	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q209	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q210	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q301	8-729-901-00	TRANSISTOR DTC124EK	
Q302	8-729-216-22	TRANSISTOR 2SA1162-G	
Q303	8-729-216-22	TRANSISTOR 2SA1162-G	
Q304	8-729-900-53	TRANSISTOR DTC114EK	
Q305	8-729-901-01	TRANSISTOR DTC144EK	
Q306	8-729-216-22	TRANSISTOR 2SA1162-G	
Q308	8-729-216-22	TRANSISTOR 2SA1162-G	
Q309	8-729-931-02	TRANSISTOR 2SC2413KQ	
Q311	8-729-901-06	TRANSISTOR DTA144EK	
Q312	8-729-900-53	TRANSISTOR DTC114EK	
Q313	8-729-216-22	TRANSISTOR 2SA1162-G	
Q314	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q315	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q401	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q402	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q403	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q404	8-729-120-28	TRANSISTOR 2SC1623-L5L6	(KV-A2131B)
Q581	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q582	8-729-216-22	TRANSISTOR 2SA1162-G	
Q610	8-729-140-97	TRANSISTOR 2SB734-34	
Q681	8-729-109-53	TRANSISTOR 2SD795A-P	
Q682	8-729-900-53	TRANSISTOR DTC114EK	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
JR101	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR102	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR104	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR106	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR107	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR111	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR112	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR113	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR114	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR115	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR116	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR117	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR118	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR119	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR120	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR121	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR122	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR123	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR125	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR127	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR129	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR130	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR131	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR132	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR133	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR134	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR136	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR137	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR138	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR140	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR141	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR142	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR143	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR144	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR145	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR150	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR151	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR152	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR201	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR202	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR203	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR204	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR205	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR206	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR207	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR208	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR209	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR210	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR211	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR212	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR213	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR214	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR215	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR216	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR217	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR218	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR219	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR220	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR221	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR222	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR223	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR225	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR226	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR227	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR228	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR229	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR230	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR231	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR232	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR233	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR235	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR236	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR237	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR238	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR239	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR240	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR241	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR242	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR243	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR245	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR246	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR247	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR248	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR249	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR250	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR251	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR252	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR253	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR254	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR255	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR256	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR257	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR258	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR270	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR272	1-216-295-00	METAL GLAZE	0	5%	1/10W	

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REF.NO.	PART NO.	DESCRIPTION				REMARK
R071	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R072	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R073	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R074	1-216-198-00	METAL GLAZE	1K	5%	1/8W	
R076	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R077	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R101	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R102	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R103	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R105	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R108	1-216-230-00	METAL GLAZE	22K	5%	1/8W	
R115	1-216-210-00	METAL GLAZE	3.3K	5%	1/8W	
R201	1-216-653-11	METAL CHIP	1.2K	0.50%	1/10W	
R202	1-216-653-11	METAL CHIP	1.2K	0.50%	1/10W	
R203	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R204	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R205	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R206	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R207	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R208	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R209	1-249-377-11	CARBON	0.47	5%	1/4W	F
R210	1-247-734-11	CARBON	39	5%	1/2W	
R211	1-247-734-11	CARBON	39	5%	1/2W	
R212	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R213	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R214	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R215	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R216	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R217	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R218	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R221	1-212-849-00	FUSIBLE	4.7	5%	1/4W	F
R222	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R223	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R224	1-249-433-11	CARBON	22K	5%	1/4W	
R225	1-212-849-00	FUSIBLE	4.7	5%	1/4W	F
R226	1-249-412-11	CARBON	390	5%	1/4W	
R227	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R228	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R229	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R230	1-216-246-91	METAL GLAZE	100K	5%	1/8W	
R231	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R232	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R233	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R234	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R235	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R236	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R237	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R238	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R239	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R241	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R242	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W	
R244	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R245	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R246	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R247	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R248	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R249	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R250	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R251	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R252	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R253	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R254	1-216-252-00	METAL GLAZE	180K	5%	1/8W	
R255	1-216-252-00	METAL GLAZE	180K	5%	1/8W	
R256	1-249-409-11	CARBON	220	5%	1/4W	
R257	1-249-409-11	CARBON	220	5%	1/4W	
R258	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R259	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R260	1-216-212-00	METAL GLAZE	3.9K	5%	1/8W	
R301	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R302	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R303	1-216-174-00	METAL GLAZE	100	5%	1/8W	
R304	1-216-174-00	METAL GLAZE	100	5%	1/8W	
R305	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R306	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R307	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R308	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R309	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R310	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R311	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R312	1-249-413-11	CARBON	470	5%	1/4W	
R313	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R314	1-249-409-11	CARBON	220	5%	1/4W	
R315	1-249-409-11	CARBON	220	5%	1/4W	
R316	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R317	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R318	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R319	1-249-413-11	CARBON	470	5%	1/4W	
R320	1-216-174-00	METAL GLAZE	100	5%	1/8W	
R321	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R322	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R324	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R325	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R326	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R328	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R329	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R330	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R331	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R333	1-216-182-91	METAL GLAZE	220	5%	1/8W	
R334	1-216-182-91	METAL GLAZE	220	5%	1/8W	
R336	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R337	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R338	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R339	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R340	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R341	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R342	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R343	1-216-022-00	METAL GLAZE	75	5%	1/10W	
R344	1-216-022-00	METAL GLAZE	75	5%	1/10W	
R345	1-216-171-00	METAL GLAZE	75	5%	1/8W	
R346	1-216-022-00	METAL GLAZE	75	5%	1/10W	
R347	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R351	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R352	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R354	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R355	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R356	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R357	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R358	1-216-031-00	METAL GLAZE	180	5%	1/10W	
R359	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R360	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R361	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R362	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R365	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R366	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R367	1-216-212-00	METAL GLAZE	3.9K	5%	1/10W	
						(KV-A2131B)
R368	1-216-033-00	METAL GLAZE	220	5%	1/10W	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

A IF (KV-A2131A/A2131D/A2133E)

REF.NO.	PART NO.	DESCRIPTION				REMARK
						(KV-A2131B)
R369	1-216-033-00	METAL GLAZE	220	5%	1/10W	
						(KV-A2131B)
R370	1-216-033-00	METAL GLAZE	220	5%	1/10W	
						(KV-A2131B)
R371	1-216-033-00	METAL GLAZE	220	5%	1/10W	
						(KV-A2131B)
R373	1-216-017-00	METAL GLAZE	47	5%	1/10W	
						(KV-A2131B)
R376	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R377	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R378	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R379	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W	
R380	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R381	1-216-164-00	METAL GLAZE	39	5%	1/8W	
R382	1-216-164-00	METAL GLAZE	39	5%	1/8W	
R383	1-216-164-00	METAL GLAZE	39	5%	1/8W	
R384	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R386	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R387	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R388	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R389	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R390	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R401	1-216-171-00	METAL GLAZE	75	5%	1/8W	
R402	1-216-158-00	METAL GLAZE	22	5%	1/8W	
R403	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R404	1-216-158-00	METAL GLAZE	22	5%	1/8W	
R405	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R406	1-216-158-00	METAL GLAZE	22	5%	1/8W	
R407	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R408	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R410	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R411	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R412	1-216-022-00	METAL GLAZE	75	5%	1/10W	
R413	1-216-022-00	METAL GLAZE	75	5%	1/10W	
R414	1-216-022-00	METAL GLAZE	75	5%	1/10W	
R416	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R417	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R419	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R420	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R423	1-216-015-00	METAL GLAZE	39	5%	1/10W	
						(KV-A2131B)
R424	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R425	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R426	1-216-025-00	METAL GLAZE	100	5%	1/10W	
						(KV-A2131B)
R427	1-216-025-00	METAL GLAZE	100	5%	1/10W	
						(KV-A2131B)
R428	1-249-393-11	CARBON	10	5%	1/4W F	
R572	1-216-198-00	METAL GLAZE	1K	5%	1/10W	
						(KV-A2131B)
R574	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R575	1-216-186-00	METAL GLAZE	330	5%	1/8W	
R577	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R578	1-216-228-00	METAL GLAZE	18K	5%	1/8W	
R580	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R581	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R582	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R583	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R584	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R585	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R586	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R587	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R588	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R589	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R590	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R591	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R592	1-216-232-00	METAL GLAZE	27K	5%	1/8W	
R593	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R594	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R595	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R596	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R597	1-216-230-00	METAL GLAZE	22K	5%	1/8W	
R600	1-216-190-00	METAL GLAZE	470	5%	1/8W	
R616	1-216-184-00	METAL GLAZE	270	5%	1/8W	
R619	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R628	1-249-413-11	CARBON	470	5%	1/4W	
R632	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R681	1-216-397-11	METAL OXIDE	4.7	5%	3W F	
R682	1-249-415-11	CARBON	680	5%	1/4W	
R683	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R2219	1-216-174-00	METAL GLAZE	100	5%	1/8W	
R2220	1-216-174-00	METAL GLAZE	100	5%	1/8W	
R2221	1-216-174-00	METAL GLAZE	100	5%	1/8W	
R2222	1-216-174-00	METAL GLAZE	100	5%	1/8W	

<TUNER>

TU101 ⚠	1-693-184-11	TUNER (U944C) (KV-A2132U)	
⚠	1-693-185-11	TUNER (UV916H) (KV-A2131A,A2131B,A2131D,A2133E)	

<CRYSTAL>

X301	1-567-504-11	OSCILLATOR, CRYSTAL	
X302	1-567-505-11	OSCILLATOR, CRYSTAL	

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	1-466-733-11	IF BLOCK (IFH-389) **********	(KV-A2131A,A2131D,A2133E)

<CAPACITOR>

C101	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C102	1-164-222-11	CERAMIC CHIP	0.22MF		25V
C103	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C104	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C105	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C106	1-124-477-11	ELECT	47MF	20%	16V
C107	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C108	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C109	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C112	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C113	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C114	1-124-477-11	ELECT	47MF	20%	16V
C115	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C116	1-164-346-11	CERAMIC CHIP	1MF		16V
C118	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C119	1-163-369-11	CERAMIC CHIP	47PF	5%	50V
C121	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C122	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C123	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C124	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C130	1-216-295-00	METAL GLAZE	0	5%	1/10W
C131	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C133	1-124-477-11	ELECT	47MF	20%	16V
C152	1-164-337-11	CERAMIC CHIP	2.2MF		16V
C153	1-164-337-11	CERAMIC CHIP	2.2MF		16V

IF (KV-A2131A/A2131D/A2133E)

REF.NO.	PART NO.	DESCRIPTION		REMARK
C154	1-164-337-11	CERAMIC CHIP 2.2MF	16V	
C155	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	
C156	1-124-477-11	ELECT 47MF	20% 16V	
C161	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	
C162	1-164-222-11	CERAMIC CHIP 0.22MF	25V	
C163	1-164-346-11	CERAMIC CHIP 1MF	16V	
C164	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V	
C165	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	
C166	1-124-477-11	ELECT 47MF	20% 16V	
C167	1-163-213-00	CERAMIC CHIP 0.0022MF	5% 50V	
C168	1-164-346-11	CERAMIC CHIP 1MF	16V	
C170	1-124-477-11	ELECT 47MF	20% 16V	
C171	1-124-477-11	ELECT 47MF	20% 16V	
C172	1-124-477-11	ELECT 47MF	20% 16V	
C173	1-124-477-11	ELECT 47MF	20% 16V	
		<FILTER>		
CF2	1-527-839-00	FILTER, CERAMIC		
CF3	1-527-840-00	FILTER, CERAMIC		
CF4	1-567-570-11	FILTER, CERAMIC		
SWF1	1-579-658-11	FILTER, SAWTOOTH WAVE		
		<CONNECTOR>		
CN1	1-750-173-11	PIN, CONNECTOR (PC BOARD) 10P		
CN2	1-750-173-11	PIN, CONNECTOR (PC BOARD) 10P		
		<TRIMMER>		
CT1	1-404-801-11	TRAP, CERAMIC		
		<DIODE>		
D161	8-719-400-18	DIODE MA152WK		
		<IC>		
IC1	8-759-070-76	IC M52308SP		
IC2	8-759-070-71	IC TDA9820		
IC3	8-759-514-54	IC BA7046		
		<COIL>		
L101	1-408-421-00	INDUCTOR 100UH		
L102	1-408-419-00	INDUCTOR 68UH		
L103	1-408-419-00	INDUCTOR 68UH		
L104	1-408-408-00	INDUCTOR 8.2UH		
L121	1-408-413-00	INDUCTOR 22UH		
L122	1-408-420-00	INDUCTOR 82UH		
L142	1-410-790-41	INDUCTOR 0.56UH		
L151	1-408-419-00	INDUCTOR 68UH		
L161	1-408-419-00	INDUCTOR 68UH		
		<TRANSISTOR>		
Q101	8-729-120-28	TRANSISTOR 2SC1623-L5L6		
Q102	8-729-216-22	TRANSISTOR 2SA1162-G		
Q121	8-729-120-28	TRANSISTOR 2SC1623-L5L6		
Q122	8-729-216-22	TRANSISTOR 2SA1162-G		
Q161	8-729-216-22	TRANSISTOR 2SA1162-G		
Q170	8-729-120-28	TRANSISTOR 2SC1623-L5L6		
Q171	8-729-120-28	TRANSISTOR 2SC1623-L5L6		
Q172	8-729-120-28	TRANSISTOR 2SC1623-L5L6		
Q173	8-729-120-28	TRANSISTOR 2SC1623-L5L6		

REF.NO.	PART NO.	DESCRIPTION				REMARK
		<RESISTOR>				
JR2	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR3	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR4	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR7	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR8	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR9	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR11	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR14	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR16	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR18	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR19	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR20	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR21	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR23	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR24	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR25	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR29	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR30	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR33	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR38	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR39	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR40	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R101	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R102	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R103	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R104	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R106	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R107	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R108	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R110	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R113	1-216-031-00	METAL GLAZE	180	5%	1/10W	
R114	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R115	1-216-027-00	METAL GLAZE	120	5%	1/10W	
R116	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R117	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R118	1-216-117-00	METAL GLAZE	680K	5%	1/10W	
R119	1-216-240-00	METAL GLAZE	56K	5%	1/8W	
R120	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R121	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R122	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R123	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R124	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R125	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R127	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R130	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R131	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R132	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R133	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R134	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R135	1-216-198-00	METAL GLAZE	1K	5%	1/8W	
R150	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R151	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R152	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R153	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R154	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R155	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R156	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R157	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R159	1-216-107-00	METAL GLAZE	270K	5%	1/10W	
R160	1-216-049-00	METAL GLAZE	1K	5%	1/10W	

IF (KV-A2131A/A2131D/A2133E)

REF.NO.	PART NO.	DESCRIPTION				REMARK
R161	1-218-755-11	METAL CHIP	130K	0.50%	1/10W	
R162	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R163	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R164	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R165	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R166	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R167	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R168	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R169	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R170	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R171	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R172	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R173	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R174	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R175	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R176	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R177	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R178	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R179	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R180	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R181	1-216-037-00	METAL GLAZE	330	5%	1/10W	

<VARIABLE RESISTOR>

RV1	1-241-121-11	RES, ADJ, CARBON 4.7K

<TRANSFORMER>

T4	1-416-017-21	COIL
T5	1-416-018-21	COIL

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1-466-734-11 IF BLOCK (IFH-395) (KV-A2132U)

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<CAPACITOR>

C101	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C102	1-164-222-11	CERAMIC CHIP	0.22MF		25V
C103	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C104	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C105	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C106	1-124-477-11	ELECT	47MF	20%	16V
C107	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C108	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C109	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C112	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C113	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C114	1-124-477-11	ELECT	47MF	20%	16V
C115	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C116	1-164-346-11	CERAMIC CHIP	1MF		16V
C118	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C119	1-163-369-11	CERAMIC CHIP	47PF	5%	50V
C122	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C130	1-216-295-00	METAL GLAZE	0	5%	1/10W
C131	1-163-224-11	CERAMIC CHIP	7PF	0.25PF	50V
C133	1-124-477-11	ELECT	47MF	20%	16V
C161	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C162	1-164-222-11	CERAMIC CHIP	0.22MF		25V
C163	1-164-346-11	CERAMIC CHIP	1MF		16V
C164	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C165	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C166	1-124-477-11	ELECT	47MF	20%	16V
C167	1-163-213-00	CERAMIC CHIP	0.0022MF	5%	50V
C168	1-164-346-11	CERAMIC CHIP	1MF		16V
C170	1-124-477-11	ELECT	47MF	20%	16V
C171	1-124-477-11	ELECT	47MF	20%	16V

<FILTER>

CD1	1-579-657-21	DISCRIMINATOR, CERAMIC
CF1	1-567-569-11	FILTER, CERAMIC
SWF1	1-579-659-11	FILTER, SAWTOOTH WAVE

<CONNECTOR>

CN1	1-750-173-11	PIN, CONNECTOR (PC BOARD) 10P
CN2	1-750-173-11	PIN, CONNECTOR (PC BOARD) 10P

<TRIMMER>

CT1	1-409-333-00	TRAP, CERAMIC (6.0MHZ)

<DIODE>

D161	8-719-400-18	DIODE MA152WK

<IC>

IC1	8-759-070-76	IC M52308SP
IC3	8-759-514-54	IC BA7046

<COIL>

L101	1-408-414-00	INDUCTOR	27UH
L102	1-408-419-00	INDUCTOR	68UH
L103	1-408-419-00	INDUCTOR	68UH
L104	1-408-406-00	INDUCTOR	5.6UH
L105	1-408-410-00	INDUCTOR	12UH
L142	1-410-790-41	INDUCTOR	0.56UH
L161	1-408-419-00	INDUCTOR	68UH

<TRANSISTOR>

Q101	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q102	8-729-216-22	TRANSISTOR 2SA1162-G
Q122	8-729-216-22	TRANSISTOR 2SA1162-G
Q161	8-729-216-22	TRANSISTOR 2SA1162-G
Q172	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q173	8-729-120-28	TRANSISTOR 2SC1623-L5L6

<RESISTOR>

JR1	1-216-296-00	METAL GLAZE	0	5%	1/8W
JR2	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR3	1-216-296-00	METAL GLAZE	0	5%	1/8W
JR4	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR7	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR8	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR9	1-216-296-00	METAL GLAZE	0	5%	1/8W
JR10	1-216-296-00	METAL GLAZE	0	5%	1/8W
JR11	1-216-296-00	METAL GLAZE	0	5%	1/8W
JR12	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR13	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
JR14	1-216-296-00	METAL GLAZE	0	5%	1/8W
JR16	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR18	1-216-295-00	METAL GLAZE	0	5%	1/10W

IF (KV-A2132U)

IF (KV-A2132U)

REF.NO.	PART NO.	DESCRIPTION				REMARK
JR19	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR20	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR21	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR23	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR24	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR25	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR29	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR30	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR33	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR38	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR39	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR40	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR41	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR42	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR101	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R101	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R102	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R103	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R104	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R105	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R106	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R107	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R108	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R110	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R112	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R113	1-216-031-00	METAL GLAZE	180	5%	1/10W	
R114	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R115	1-216-031-00	METAL GLAZE	180	5%	1/10W	
R116	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R117	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R118	1-216-117-00	METAL GLAZE	680K	5%	1/10W	
R119	1-216-240-00	METAL GLAZE	56K	5%	1/8W	
R120	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R121	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R122	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R123	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R130	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R131	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R132	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R133	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R134	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R135	1-216-198-00	METAL GLAZE	1K	5%	1/8W	
R153	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R159	1-216-107-00	METAL GLAZE	270K	5%	1/10W	
R160	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R161	1-218-755-11	METAL CHIP	130K	0.50%	1/10W	
R162	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R163	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R164	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R165	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R166	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R167	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R168	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R169	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R175	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R176	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R177	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R178	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R179	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R181	1-216-037-00	METAL GLAZE	330	5%	1/10W	

<VARIABLE RESISTOR>

RV1	1-241-121-11	RES, ADJ, CARBON 4.7K	

IF (KV-A2131B)

REF.NO.	PART NO.	DESCRIPTION				REMARK

<TRANSFORMER>

T4	1-416-017-21	COIL	
T5	1-416-018-21	COIL	

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1-466-735-11 IF BLOCK (IFH-389F) (KV-A2131B)

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<CAPACITOR>

C1	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C2	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C3	1-124-903-11	ELECT	1MF	20%	50V
C4	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C5	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C6	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C7	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C8	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C9	1-124-916-11	ELECT	22MF	20%	25V
C10	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C11	1-124-477-11	ELECT	47MF	20%	16V
C13	1-163-059-00	CERAMIC CHIP	0.01MF	10%	50V
C14	1-124-477-11	ELECT	47MF	20%	16V
C15	1-124-903-11	ELECT	1MF	20%	50V
C16	1-163-061-00	CERAMIC CHIP	0.015MF	10%	50V
C17	1-162-638-11	CERAMIC CHIP	1MF		16V
C18	1-162-638-11	CERAMIC CHIP	1MF		16V
C19	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C20	1-124-902-00	ELECT	0.47MF	20%	50V
C21	1-124-903-11	ELECT	1MF	20%	50V
C22	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C23	1-124-902-00	ELECT	0.47MF	20%	50V
C24	1-164-506-11	CERAMIC CHIP	4.7MF		16V
C25	1-124-477-11	ELECT	47MF	20%	16V
C26	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C27	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C28	1-124-477-11	ELECT	47MF	20%	16V
C33	1-124-907-11	ELECT	10MF	20%	50V
C34	1-124-907-11	ELECT	10MF	20%	50V
C35	1-124-925-11	ELECT	2.2MF	20%	50V
C36	1-124-477-11	ELECT	47MF	20%	16V
C37	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C38	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C40	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C71	1-124-477-11	ELECT	47MF	20%	16V
C72	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C80	1-124-477-11	ELECT	47MF	20%	16V
C83	1-124-477-11	ELECT	47MF	20%	16V
C84	1-124-477-11	ELECT	47MF	20%	16V
C85	1-124-477-11	ELECT	47MF	20%	16V
C86	1-124-477-11	ELECT	47MF	20%	16V
C87	1-124-477-11	ELECT	47MF	20%	16V
C91	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
C95	1-164-337-11	CERAMIC CHIP	2.2MF		16V
C101	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C102	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C104	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C105	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C106	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C121	1-126-176-11	ELECT	220MF	20%	10V
C122	1-163-119-00	CERAMIC CHIP	120PF	5%	50V

REF.NO.	PART NO.	DESCRIPTION	REMARK
C131	1-126-099-11	ELECT 2.2MF 20% 35V	
		<FILTER>	
CF1	1-527-839-00	FILTER, CERAMIC	
CF2	1-567-569-11	FILTER, CERAMIC	
CF3	1-527-840-00	FILTER, CERAMIC	
CF4	1-567-570-11	FILTER, CERAMIC	
SWF1	1-579-662-11	FILTER, SURFACE WAVE	
SWF3	1-404-711-11	SAWF	
SWF4	1-579-660-11	FILTER, SAWTOOTH WAVE	
		<CONNECTOR>	
CN1	1-750-173-11	PIN, CONNECTOR (PC BOARD) 10P	
CN2	1-750-173-11	PIN, CONNECTOR (PC BOARD) 10P	
		<TRIMMER>	
CT1	1-404-801-11	TRAP, CERAMIC	
CT2	1-409-429-11	TRAP, CERAMIC	
CV1	1-141-245-00	CAP, TRIMMER	
CV2	1-141-245-00	CAP, TRIMMER	
CV3	1-141-304-21	TRIMMER, CERAMIC	
		<DIODE>	
D7	8-719-421-57	DIODE MA73-TX	
D8	8-719-421-57	DIODE MA73-TX	
D9	8-719-421-57	DIODE MA73-TX	
		<IC>	
IC1	8-759-070-75	IC M52312SP	
IC2	8-759-070-71	IC TDA9820	
IC3	8-759-979-62	IC PCF8574	
		<COIL>	
L1	1-408-419-00	INDUCTOR 68UH	
L2	1-408-419-00	INDUCTOR 68UH	
L3	1-408-407-00	INDUCTOR 6.8UH	
L4	1-408-419-00	INDUCTOR 68UH	
L5	1-408-419-00	INDUCTOR 68UH	
L7	1-408-406-00	INDUCTOR 5.6UH	
L9	1-408-419-00	INDUCTOR 68UH	
L71	1-408-419-00	INDUCTOR 68UH	
L101	1-408-399-00	INDUCTOR 1.5UH	
L121	1-408-407-00	INDUCTOR 6.8UH	
		<TRANSISTOR>	
Q1	8-729-907-06	TRANSISTOR BF199-AMMO	
Q4	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q5	8-729-115-10	TRANSISTOR 2SK105A-10	
Q6	8-729-900-52	TRANSISTOR DTC114YK	
Q7	8-729-216-22	TRANSISTOR 2SA1162-G	
Q8	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q10	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q11	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q12	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q13	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q14	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q15	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q16	8-729-216-22	TRANSISTOR 2SA1162-G	
Q101	8-729-104-80	TRANSISTOR 2SC3355	
Q121	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
		<RESISTOR>	
JR2	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR3	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR5	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R1	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R2	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R3	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R4	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R5	1-216-021-00	METAL GLAZE 68 5% 1/10W	
R6	1-216-055-00	METAL GLAZE 1.8K 5% 1/10W	
R8	1-216-051-00	METAL GLAZE 1.2K 5% 1/10W	
R9	1-216-069-00	METAL GLAZE 6.8K 5% 1/10W	
R10	1-216-071-00	METAL GLAZE 8.2K 5% 1/10W	
R11	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
R24	1-216-280-00	METAL GLAZE 2.7M 5% 1/8W	
R25	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R26	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R27	1-216-266-00	METAL GLAZE 680K 5% 1/8W	
R28	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R29	1-216-035-00	METAL GLAZE 270 5% 1/10W	
R30	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R31	1-216-017-00	METAL GLAZE 47 5% 1/10W	
R32	1-216-043-00	METAL GLAZE 560 5% 1/10W	
R33	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R34	1-216-252-00	METAL GLAZE 180K 5% 1/8W	
R35	1-216-035-00	METAL GLAZE 270 5% 1/10W	
R36	1-216-029-00	METAL GLAZE 150 5% 1/10W	
R37	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R38	1-216-099-00	METAL GLAZE 120K 5% 1/10W	
R39	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R40	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R42	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R43	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W	
R44	1-216-027-00	METAL GLAZE 120 5% 1/10W	
R45	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R46	1-216-031-00	METAL GLAZE 180 5% 1/10W	
R47	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R48	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R49	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R53	1-216-082-00	METAL GLAZE 24K 5% 1/10W	
R54	1-216-043-00	METAL GLAZE 560 5% 1/10W	
R55	1-216-043-00	METAL GLAZE 560 5% 1/10W	
R56	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R57	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R58	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R59	1-216-043-00	METAL GLAZE 560 5% 1/10W	
R60	1-216-043-00	METAL GLAZE 560 5% 1/10W	
R61	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R63	1-216-043-00	METAL GLAZE 560 5% 1/10W	
R71	1-216-079-00	METAL GLAZE 18K 5% 1/10W	
R72	1-216-079-00	METAL GLAZE 18K 5% 1/10W	
R73	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R74	1-216-079-00	METAL GLAZE 18K 5% 1/10W	
R75	1-216-079-00	METAL GLAZE 18K 5% 1/10W	
R76	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R77	1-216-174-00	METAL GLAZE 100 5% 1/8W	
R81	1-216-095-00	METAL GLAZE 82K 5% 1/10W	
R82	1-216-121-00	METAL GLAZE 1M 5% 1/10W	
R83	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R84	1-216-085-00	METAL GLAZE 33K 5% 1/10W	

IF (KV-A2131B) M1

REF.NO.	PART NO.	DESCRIPTION				REMARK
R85	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R86	1-216-689-11	METAL GLAZE	39K	5%	1/10W	
R87	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R88	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R89	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R90	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R91	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R92	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R93	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R94	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R95	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R96	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R97	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R98	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R99	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R100	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R102	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R103	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R104	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R105	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R121	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R122	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R123	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R124	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R125	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R301	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R302	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R303	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R304	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R305	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R306	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R307	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R308	1-216-037-00	METAL GLAZE	330	5%	1/10W	

<VARIABLE RESISTOR>

RV2	1-241-120-11	RES, ADJ, CARBON 2.2K

<TRANSFORMER>

T1	1-404-806-21	COIL
T3	1-416-012-11	COIL
T4	1-416-012-11	COIL
T5	1-402-720-11	COIL

<CRYSTAL>

X1	1-579-648-21	VIBRATOR, CERAMIC

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*A-1635-006-A M1 BOARD, COMPLETE
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<CAPACITOR>

C001	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C002	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C003	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C004	1-164-222-11	CERAMIC CHIP 0.22MF		25V
C007	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C008	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C010	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C011	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C012	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C014	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C016	1-163-141-00	CERAMIC CHIP 0.001MF	5%	50V
C017	1-164-222-11	CERAMIC CHIP 0.22MF		25V
C018	1-164-505-11	CERAMIC CHIP 2.2MF		16V
C019	1-124-916-11	ELECT 22MF	20%	50V
C020	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C021	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C022	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C023	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C024	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C025	1-164-222-11	CERAMIC CHIP 0.22MF		25V
C026	1-164-222-11	CERAMIC CHIP 0.22MF		25V
C032	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C035	1-163-033-00	CERAMIC CHIP 0.022MF		50V
C036	1-164-005-11	CERAMIC CHIP 0.47MF		25V
C037	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C039	1-163-011-11	CERAMIC CHIP 0.0015MF	10%	50V
C041	1-162-638-11	CERAMIC CHIP 1MF		16V
C042	1-164-346-11	CERAMIC CHIP 1MF		16V
C522	1-163-141-00	CERAMIC CHIP 0.001MF	5%	50V
C523	1-163-141-00	CERAMIC CHIP 0.001MF	5%	50V
C524	1-163-113-00	CERAMIC CHIP 68PF	5%	50V
C525	1-164-222-11	CERAMIC CHIP 0.22MF		25V
C528	1-163-105-00	CERAMIC CHIP 33PF	5%	50V
C529	1-163-169-00	CERAMIC CHIP 33PF	5%	50V
C541	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C542	1-163-037-11	CERAMIC CHIP 0.022MF	10%	25V
C543	1-164-161-11	CERAMIC CHIP 0.0022MF	10%	50V
C544	1-164-161-11	CERAMIC CHIP 0.0022MF	10%	50V
C546	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C547	1-163-020-00	CERAMIC CHIP 0.0082MF	10%	50V
C549	1-163-989-11	CERAMIC CHIP 0.033MF	10%	25V
C550	1-163-141-00	CERAMIC CHIP 0.001MF	5%	50V
C559	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C560	1-164-161-11	CERAMIC CHIP 0.0022MF	10%	50V
C563	1-163-031-11	CERAMIC CHIP 0.01MF		50V
C564	1-163-031-11	CERAMIC CHIP 0.01MF		50V
C565	1-163-031-11	CERAMIC CHIP 0.01MF		50V
C566	1-163-031-11	CERAMIC CHIP 0.01MF		50V
C567	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V
C568	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V
C569	1-164-161-11	CERAMIC CHIP 0.0022MF	10%	50V
C570	1-162-568-11	CERAMIC CHIP 0.33MF	10%	16V
C2001	1-163-235-11	CERAMIC CHIP 22PF	5%	50V
C2002	1-163-235-11	CERAMIC CHIP 22PF	5%	50V
C2003	1-164-222-11	CERAMIC CHIP 0.22MF		25V
C2004	1-164-222-11	CERAMIC CHIP 0.22MF		25V
C2005	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C2006	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C2008	1-164-222-11	CERAMIC CHIP 0.22MF		25V
C2009	1-163-105-00	CERAMIC CHIP 33PF	5%	50V
C2010	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C2011	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C2012	1-164-222-11	CERAMIC CHIP 0.22MF		25V
C2014	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V
C2015	1-164-349-11	CERAMIC CHIP 0.18MF	10%	25V
C2016	1-164-222-11	CERAMIC CHIP 0.22MF		25V
C2017	1-164-222-11	CERAMIC CHIP 0.22MF		25V
C2018	1-164-505-11	CERAMIC CHIP 2.2MF		16V
C2019	1-124-916-11	ELECT 22MF	20%	50V
C2020	1-164-222-11	CERAMIC CHIP 0.22MF		25V
C2021	1-163-113-00	CERAMIC CHIP 68PF	5%	50V
C2022	1-163-117-00	CERAMIC CHIP 100PF	5%	50V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C2023	1-124-907-11	ELECT	10MF	20%	50V
C2024	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C2025	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C2027	1-164-222-11	CERAMIC CHIP	0.22MF		25V
		<FILTER>			
CD001	1-577-364-11	VIBRATOR, CERAMIC			
		<CONNECTOR>			
CN1413	1-695-301-11	CONNECTOR, BOARD TO BOARD 40P			
CN1426*	1-568-881-51	PIN, CONNECTOR 6P			
CN1432*	1-568-882-51	PIN, CONNECTOR 7P			
CN1435*	1-568-882-51	PIN, CONNECTOR 7P			
		<DIODE>			
D001	8-719-027-82	DIODE MA3039H-TX			
D2001	8-719-036-58	DIODE MA3030-H(TX)			
D2002	8-719-401-31	DIODE MA3047L-TX			
D2003	8-719-104-34	DIODE 1S2836			
		<IC>			
IC001	8-759-168-52	IC SDA30C162-GEG			
IC002	8-759-167-62	IC TMS27PC010A-15FML			
	1-750-797-11	SOCKET, PLCC ; IC002			
IC561	8-752-347-92	IC CXD2018Q			
IC562	8-759-998-98	IC LM358D			
IC563	8-759-708-05	IC NJM78L05A			
IC2001	8-759-708-05	IC NJM78L05A			
IC2002	8-759-181-21	IC SDA5273-B19-GEG			
IC2003	8-759-188-60	IC MB81C4256A-70PSZ			
IC2004	8-759-170-67	IC SDA9085			
		<COIL>			
L001	1-408-421-00	INDUCTOR	100UH		
L561	1-408-409-00	INDUCTOR	10UH		
L562	1-408-409-00	INDUCTOR	10UH		
L563	1-408-947-00	INDUCTOR	2.2MMH		
L2001	1-410-674-31	INDUCTOR	82UH		
L2004	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH			
		<TRANSISTOR>			
Q002	8-729-216-22	TRANSISTOR 2SA1162-G			
Q003	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q564	8-729-216-22	TRANSISTOR 2SA1162-G			
Q565	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q566	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q567	8-729-901-01	TRANSISTOR DTC144EK			
Q2001	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q2002	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q2003	8-729-216-22	TRANSISTOR 2SA1162-G			
Q2005	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q2006	8-729-901-01	TRANSISTOR DTC144EK			
Q2008	8-729-901-00	TRANSISTOR DTC124EK			
		<RESISTOR>			
JR553	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR554	1-216-296-91	METAL GLAZE	0	5%	1/8W
R001	1-216-025-00	METAL GLAZE	100	5%	1/10W
R002	1-216-025-00	METAL GLAZE	100	5%	1/10W
R003	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R004	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R005	1-216-295-00	METAL GLAZE	0	5%	1/10W
R006	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R007	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R008	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R010	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R011	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R012	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R013	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R014	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R016	1-216-045-00	METAL GLAZE	680	5%	1/10W
R017	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R018	1-216-041-00	METAL GLAZE	470	5%	1/10W
R019	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R020	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R021	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R022	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R023	1-216-025-00	METAL GLAZE	100	5%	1/10W
R024	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R025	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R026	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R027	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R028	1-216-075-00	METAL GLAZE	12K	5%	1/10W
R030	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R032	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R033	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R034	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R035	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R038	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R049	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R050	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R051	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R052	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R053	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R054	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R055	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R067	1-216-043-00	METAL GLAZE	560	5%	1/10W
R068	1-216-043-00	METAL GLAZE	560	5%	1/10W
R069	1-216-037-00	METAL GLAZE	330	5%	1/10W
R070	1-216-037-00	METAL GLAZE	330	5%	1/10W
R535	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R536	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R538	1-216-025-00	METAL GLAZE	100	5%	1/10W
R539	1-216-657-11	METAL CHIP	1.8K	0.50%	1/10W
R541	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R542	1-216-025-00	METAL GLAZE	100	5%	1/10W
R544	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R545	1-216-033-00	METAL GLAZE	220	5%	1/10W
R546	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R547	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R551	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R552	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R553	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R559	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R560	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R564	1-216-091-00	METAL GLAZE	56K	5%	1/10W
R565	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R566	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R567	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R568	1-216-109-00	METAL GLAZE	330K	5%	1/10W
R570	1-216-049-00	METAL GLAZE	1K	5%	1/10W

M1 C

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R2001	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R2002	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R2003	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R2004	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R2005	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R2007	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2008	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2009	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R2010	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2011	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R2012	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R2013	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R2014	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R2015	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R2016	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R2017	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2018	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2019	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2020	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R2021	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R2022	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R2023	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R2024	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R2025	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R2026	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R2028	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R2029	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R2032	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2033	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R2035	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2036	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2037	1-216-049-00	METAL GLAZE	1K	5%	1/10W	

<CRYSTAL>

X2001	1-579-965-21	VIBRATOR, CRYSTAL	

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*A-1638-039-A C BOARD, COMPLETE
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<CAPACITOR>

C701	1-162-114-00	CERAMIC	0.0047MF		2KV
C703	1-123-946-00	ELECT	4.7MF	20%	250V
C705	1-162-116-00	CERAMIC	680PF	10%	2KV
C708	1-163-197-00	CERAMIC CHIP	470PF	10%	50V
C709	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C710	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C711	1-101-880-00	CERAMIC	47PF	5%	50V
C712	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C713	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C714	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C716	1-124-122-11	ELECT	100MF	20%	50V

<CONNECTOR>

CN0002	1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P
CN0403*	1-564-511-11	PLUG, CONNECTOR 8P
CN0421*	1-508-768-00	PIN, CONNECTOR (5MM PITCH) 6P

<DIODE>

D701	8-719-911-19	DIODE 1SS119
D702	8-719-911-19	DIODE 1SS119
D703	8-719-911-19	DIODE 1SS119
D704	8-719-911-19	DIODE 1SS119
D705	8-719-911-19	DIODE 1SS119
D706	8-719-911-19	DIODE 1SS119
D707	8-719-911-19	DIODE 1SS119
D708	8-719-911-19	DIODE 1SS119
D709	8-719-911-19	DIODE 1SS119
D710	8-719-911-19	DIODE 1SS119
D713	8-719-908-03	DIODE GP08D

<JACK>

J701	⚠ 1-526-990-21	SOCKET, PICTURE TUBE	

<COIL>

L701	1-410-667-31	INDUCTOR	22UH
L703	1-408-609-41	INDUCTOR	33UH
L705	1-408-609-41	INDUCTOR	33UH
L707	1-408-609-41	INDUCTOR	33UH

<TRANSISTOR>

Q701	8-729-906-70	TRANSISTOR BF871
Q702	8-729-906-70	TRANSISTOR BF871
Q703	8-729-906-70	TRANSISTOR BF871
Q704	8-729-906-70	TRANSISTOR BF871
Q705	8-729-906-70	TRANSISTOR BF871
Q706	8-729-906-70	TRANSISTOR BF871
Q707	8-729-200-17	TRANSISTOR 2SA1091-O
Q708	8-729-200-17	TRANSISTOR 2SA1091-O
Q709	8-729-200-17	TRANSISTOR 2SA1091-O
Q710	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q711	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q712	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q713	8-729-216-22	TRANSISTOR 2SA1162-G
Q714	8-729-255-12	TRANSISTOR 2SC2551-O

<RESISTOR>

JR701	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR703	1-216-296-91	METAL GLAZE	0	5%	1/8W	
R701	1-202-848-00	SOLID	680K	10%	1/2W	
R702	1-202-838-00	SOLID	100K	20%	1/2W	
R703	1-202-838-00	SOLID	100K	20%	1/2W	
R704	1-202-842-11	SOLID	220K	10%	1/2W	
R705	1-216-398-11	METAL OXIDE	5.6	5%	3W	F
R706	1-216-398-11	METAL OXIDE	5.6	5%	3W	F
R707	1-249-421-11	CARBON	2.2K	5%	1/4W	
R708	1-249-421-11	CARBON	2.2K	5%	1/4W	
R709	1-249-421-11	CARBON	2.2K	5%	1/4W	
R710	1-215-899-11	METAL OXIDE	15K	5%	2W	F
R711	1-202-820-11	SOLID	1.5K	20%	1/2W	
R712	1-215-899-11	METAL OXIDE	15K	5%	2W	F
R713	1-202-820-11	SOLID	1.5K	20%	1/2W	
R714	1-215-899-11	METAL OXIDE	15K	5%	2W	F
R715	1-202-820-11	SOLID	1.5K	20%	1/2W	
R716	1-247-700-11	CARBON	100	5%	1/4W	F
R717	1-249-405-11	CARBON	100	5%	1/4W	F
R718	1-247-700-11	CARBON	100	5%	1/4W	F
R720	1-249-417-11	CARBON	1K	5%	1/4W	F
R722	1-247-713-11	CARBON	1K	5%	1/4W	F

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REF.NO.	PART NO.	DESCRIPTION				REMARK
R724	1-249-417-11	CARBON	1K	5%	1/4W	F
R725	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R726	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R727	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R728	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R729	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R730	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R731	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R732	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R733	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R734	1-202-549-00	SOLID	100	20%	1/2W	
R735	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R738	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R739	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R740	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R741	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R742	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R743	1-249-434-11	CARBON	27K	5%	1/4W	
R747	1-216-489-11	METAL OXIDE	27K	5%	3W	F
R749	1-216-490-11	METAL OXIDE	39K	5%	3W	F
R751	1-215-926-00	METAL OXIDE	33K	5%	3W	F
R753	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R755	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R756	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R757	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R758	1-249-419-11	CARBON	1.5K	5%	1/4W	
R759	1-249-419-11	CARBON	1.5K	5%	1/4W	
R760	1-249-419-11	CARBON	1.5K	5%	1/4W	

<VARIABLE RESISTOR>

RV701	1-230-641-11	RES, ADJ, METAL GLAZE 2.2M	
RV702	1-241-656-11	RES, ADJ, METAL FILM 110M	
RV702	1-241-656-11	RES, ADJ, METAL FILM 110M	

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*A-1640-110-A D5 BOARD, COMPLETE
****

<CAPACITOR>

C802	1-162-625-11	CERAMIC CHIP	0.0047MF	5%	50V
C804	1-136-161-00	FILM	0.047MF	5%	50V
C806	1-124-907-11	ELECT	10MF	20%	50V
C823	1-124-902-00	ELECT	0.47MF	20%	50V
C827	1-130-777-00	FILM	0.1MF	5%	63V
C847	1-164-337-11	CERAMIC CHIP	2.2MF		16V
C852	1-164-299-11	CERAMIC CHIP	0.22MF	10%	25V
C853	1-124-910-11	ELECT	47MF	20%	50V
C857	1-124-902-00	ELECT	0.47MF	20%	50V
C861	1-130-777-00	FILM	0.1MF	5%	63V
C866	1-137-364-91	FILM	0.001MF	5%	50V
C870	1-137-364-91	FILM	0.001MF	5%	50V
C871	1-130-651-00	FILM	0.001MF	2%	100V
C872	1-124-907-11	ELECT	10MF	20%	50V
C873	1-137-364-91	FILM	0.001MF	5%	50V

<CONNECTOR>

CN2044*	1-573-299-11	CONNECTOR, BOARD TO BOARD 10P

<DIODE>

D804	8-719-911-19	DIODE 1SS119
D808	8-719-109-88	DIODE RD5.6ESB1
D818	8-719-109-93	DIODE RD6.2ESB2
D821	8-719-104-34	DIODE 1S2836
D827	8-719-982-96	DIODE MTZJ-T-77-2.2A
D830	8-719-104-34	DIODE 1S2836
D831	8-719-400-18	DIODE MA152WK
D832	8-719-104-34	DIODE 1S2836
D833	8-719-104-34	DIODE 1S2836

<IC>

IC802	8-759-987-16	IC LM393P

<TRANSISTOR>

Q804	8-729-216-22	TRANSISTOR 2SA1162-G
Q805	8-729-216-22	TRANSISTOR 2SA1162-G
Q812	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q818	8-729-216-22	TRANSISTOR 2SA1162-G

<RESISTOR>

JR802	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR803	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR804	1-216-295-00	METAL GLAZE	0	5%	1/10W
R802	1-216-295-00	METAL GLAZE	0	5%	1/10W
R805	1-216-679-11	METAL CHIP	15K	0.50%	1/10W
R806	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R808	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R809	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R813	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R814	1-216-091-00	METAL GLAZE	56K	5%	1/10W
R815	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R820	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R824	1-216-675-11	METAL CHIP	10K	0.50%	1/10W
R828	1-216-121-00	METAL GLAZE	1M	5%	1/10W
R829	1-249-429-11	CARBON	10K	5%	1/4W F
R830	1-216-687-11	METAL CHIP	33K	0.50%	1/10W
R832	1-216-689-11	METAL GLAZE	39K	5%	1/10W
R835	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R837	1-216-695-11	METAL CHIP	68K	0.50%	1/10W
R838	1-216-075-00	METAL GLAZE	12K	5%	1/10W
R846	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W
R847	1-216-699-11	METAL CHIP	100K	0.50%	1/10W
R867	1-216-113-00	METAL GLAZE	470K	5%	1/10W
R884	1-216-693-11	METAL CHIP	56K	0.50%	1/10W

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*A-1642-098-A D BOARD, COMPLETE
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4-200-001-01	HOLDER, IC
4-201-023-01	SPACER, INSULATING
*4-368-683-21	SPRING, TRANSISTOR
4-389-343-21	SPRING, IC
4-812-134-00	RIVET NYLON, 3.5

<CAPACITOR>

C601	1-130-202-00	FILM	0.022MF	10%	400V
C602	1-162-116-00	CERAMIC	680PF	10%	2KV
C603 ⚠	1-164-246-61	CERAMIC	0.0022MF	20%	400V
C605	1-124-910-11	ELECT	47MF	20%	50V

D

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REF.NO.	PART NO.	DESCRIPTION				REMARK
C608	1-124-903-11	ELECT	1MF	20%	50V	
C611	1-102-002-00	CERAMIC	680PF	10%	500V	
C612	1-137-437-11	FILM	0.0056MF	5%	50V	
C613	1-129-722-00	FILM	0.047MF	10%	630V	
C614	1-102-030-00	CERAMIC	330PF	10%	500V	
C615	1-126-943-11	ELECT	2200MF	20%	25V	
C616	1-102-030-00	CERAMIC	330PF	10%	500V	
C617	1-162-116-00	CERAMIC	680PF	10%	2KV	
C618	1-162-134-11	CERAMIC	470PF	10%	2KV	
C619	1-102-030-00	CERAMIC	330PF	10%	500V	
C620	1-164-299-11	CERAMIC CHIP	0.22MF	10%	25V	
C621	1-124-347-00	ELECT	100MF	20%	160V	
C622	1-128-320-11	ELECT	2200MF	20%	16V	
C623	1-102-030-00	CERAMIC	330PF	10%	500V	
C624	1-126-800-51	ELECT	2200MF	20%	35V	
C625	1-126-800-51	ELECT	2200MF	20%	35V	
C627	1-136-553-11	FILM	0.0015MF	10%	400V	
C628	1-124-910-11	ELECT	47MF	20%	50V	
C629	1-124-907-11	ELECT	10MF	20%	50V	
C631	1-163-075-00	CERAMIC CHIP	0.047MF	10%	25V	
C632	1-137-372-11	FILM	0.022MF	5%	50V	
C633	1-163-078-11	CERAMIC CHIP	0.033MF	10%	25V	
C636	1-130-777-00	FILM	0.1MF	5%	63V	
C640	1-124-916-11	ELECT	22MF	20%	50V	
C645	1-128-571-11	ELECT	56MF	20%	50V	
C646	1-124-798-11	ELECT	1MF	20%	160V	
C647	1-124-907-11	ELECT	10MF	20%	50V	
C801	1-137-116-11	FILM	1MF	5%	200V	
C805	1-124-902-00	ELECT	0.47MF	20%	50V	
C808	1-162-114-00	CERAMIC	0.0047MF		2KV	
C809	1-124-808-51	ELECT	10MF	20%	200V	
C810	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C812	1-162-318-11	CERAMIC	0.001MF	10%	500V	
C813	1-108-704-11	MYLAR	0.1MF	10%	200V	
C815	1-162-117-00	CERAMIC	100PF	10%	500V	
C819	1-126-103-11	ELECT	470MF	20%	16V	
C821 ⚠	1-137-062-11	FILM	0.015MF	3%	1.4KV	
C822 ⚠	1-162-116-91	CERAMIC	680PF	10%	2KV	
C824	1-137-368-11	FILM	0.0047MF	5%	50V	
C825 ⚠	1-162-116-91	CERAMIC	680PF	10%	2KV	
C826 ⚠	1-137-515-61	FILM	0.056MF	3%	400V	
C828	1-136-557-11	FILM	0.0033MF	10%	400V	
C831	1-123-932-00	ELECT	4.7MF	20%	160V	
C832	1-124-910-11	ELECT	47MF	20%	50V	
C835	1-124-480-11	ELECT	470MF	20%	25V	
C836	1-102-228-00	CERAMIC	470PF	10%	500V	
C837	1-129-702-00	FILM	0.001MF	10%	400V	
C838	1-129-725-00	FILM	0.082MF	10%	250V	
C839	1-123-950-00	ELECT	47MF	20%	250V	
C840	1-124-480-11	ELECT	470MF	20%	25V	
C841	1-102-228-00	CERAMIC	470PF	10%	500V	
C842	1-104-722-91	FILM	0.068MF	10%	250V	
C846	1-123-024-21	ELECT	33MF		160V	
C851	1-136-559-11	FILM	0.0047MF	10%	400V	
C854 ⚠	1-162-116-91	CERAMIC	680PF	10%	2KV	
C863	1-106-383-00	MYLAR	0.047MF	10%	100V	
C868	1-137-371-11	FILM	0.015MF	5%	50V	
C869	1-130-777-00	FILM	0.1MF	5%	63V	
C875	1-102-038-00	CERAMIC	0.001MF		500V	
C877	1-124-902-00	ELECT	0.47MF	20%	50V	
C878	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C879	1-102-228-00	CERAMIC	470PF	10%	500V	
C1501	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V	
C1502	1-124-903-11	ELECT	1MF	20%	50V	
C1503	1-163-133-00	CERAMIC CHIP	470PF	5%	50V	
C1504	1-124-480-11	ELECT	470MF	20%	25V	
C1505	1-124-911-11	ELECT	220MF	20%	50V	
C1506	1-136-202-11	FILM	0.33MF	5%	63V	
C1507	1-106-228-00	MYLAR	0.22MF	10%	100V	
C1508	1-124-480-11	ELECT	470MF	20%	25V	
C1509	1-124-767-00	ELECT	2.2MF	20%	50V	
C1511	1-124-907-11	ELECT	10MF	20%	50V	
C1512	1-124-006-11	ELECT	10MF	20%	25V	
C1514	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1515	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	

<CONNECTOR>

CN0004	1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
CN0009	1-568-878-51	PIN, CONNECTOR 3P	
CN0504*	1-564-511-11	PLUG, CONNECTOR 8P	
CN0505*	1-568-880-51	PIN, CONNECTOR 5P	
CN0506*	1-568-880-51	PIN, CONNECTOR 5P	
CN0519*	1-568-878-51	PIN, CONNECTOR 3P	
CN0521	1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
CN0524*	1-568-878-51	PIN, CONNECTOR 3P	
CN0525*	1-695-294-11	PIN, CONNECTOR (PC BOARD) 6P	
CN0526*	1-568-881-51	PIN, CONNECTOR 6P	
CN0529	1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P	
CN0544	1-573-296-11	CONNECTOR, BOARD TO BOARD 10P	
CN5521*	1-568-878-51	PIN, CONNECTOR 3P	
DY1	*1-580-798-11	CONNECTOR PIN (DY) 6P	

<DIODE>

D601	8-719-104-34	DIODE 1S2836
D602	8-719-302-43	DIODE EL1Z
D604	8-719-921-91	DIODE MTZJ-15A
D605	8-719-989-91	DIODE 1N4148A-T265
D606	8-719-302-43	DIODE EL1Z
D607	8-719-302-43	DIODE EL1Z
D608	8-719-300-33	DIODE RU-3AM
D610	1-806-660-11	DIODE ESAB85-009
D611	8-719-029-04	DIODE D5L60
D612	8-719-510-09	DIODE D10SC6M
D613	8-719-920-68	DIODE ESAB92-02
D614	8-719-920-68	DIODE ESAB92-02
D616	8-719-110-31	DIODE RD12ESB2
D619	8-719-400-18	DIODE MA152WK
D620	8-719-911-19	DIODE 1SS119
D621	8-719-302-43	DIODE EL1Z
D624	8-719-312-39	DIODE R2K-V1
D801	8-719-018-82	DIODE RGP02-20EL-6394
D802	8-719-302-43	DIODE EL1Z
D803	8-719-982-27	DIODE MTZJ-33C
D809	8-719-110-03	DIODE RD7.5ESB2
D812	8-719-908-03	DIODE GP08D
D813	8-719-908-03	DIODE GP08D
D814	8-719-979-85	DIODE EGP20G
D815	8-719-302-43	DIODE EL1Z
D816	8-719-979-85	DIODE EGP20G
D822	8-719-982-20	DIODE MTZJ-30B
D824	8-719-028-72	DIODE RGP02-17EL-6433
D825	8-719-400-18	DIODE MA152WK
D826	8-719-400-18	DIODE MA152WK
D828	8-719-911-19	DIODE 1SS119
D1501	8-719-400-18	DIODE MA152WK
D1503	8-719-908-03	DIODE GP08D

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REF.NO.	PART NO.	DESCRIPTION	REMARK
D1504	8-719-982-03	DIODE MTZJ-3.6A	
		<IC>	
IC601	8-759-073-29	IC TDA4605-3	
IC602	8-759-908-15	IC TL431CLP	
IC603⚠	8-749-923-44	IC SFH617G-1	
IC801	8-759-103-93	IC LM393P	
IC803	8-759-081-31	IC MC78L12ACPRP	
IC1501	8-759-506-46	IC TDA8179S	
	4-812-134-00	RIVET NYLON, 3.5 ; IC1501	
		<COIL>	
L602	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
L603	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
L604	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
L605	1-459-442-00	COIL (WITH CORE)	
L606	1-459-442-00	COIL (WITH CORE)	
L609	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
L610	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
L622	1-412-533-21	INDUCTOR 47UH	
L623	1-412-533-21	INDUCTOR 47UH	
L803	1-420-872-00	COIL, AIR CORE	
L808	1-412-549-21	INDUCTOR 1MMH	
L809	1-459-111-00	COIL, WITH CORE	
L810	1-460-197-21	COIL, FERRITE (PMC)	
L811	1-412-519-11	INDUCTOR 3.3UH	
L812	1-412-519-11	INDUCTOR 3.3UH	
L813	1-412-519-11	INDUCTOR 3.3UH	
L817	1-459-652-12	COIL, HORIZONTAL LINEARITY	
L1501	1-412-531-31	INDUCTOR 33UH	
L1502	1-412-525-21	INDUCTOR 10UH	
L1503	1-412-531-31	INDUCTOR 33UH	
		<IC LINK>	
PS601⚠	1-532-686-91	LINK, IC 2.7A	
PS602⚠	1-532-686-91	LINK, IC 2.7A	
PS603⚠	1-532-686-91	LINK, IC 2.7A	
PS604⚠	1-532-686-91	LINK, IC 2.7A	
		<TRANSISTOR>	
Q601	8-729-016-14	TRANSISTOR BUZ91A-E3155	
Q602	8-729-177-22	TRANSISTOR 2SB772-Q	
Q603	8-729-900-53	TRANSISTOR DTC114EK	
Q604	8-729-209-15	TRANSISTOR 2SD2012	
Q605	8-729-255-12	TRANSISTOR 2SC2551-O	
Q606	8-729-216-22	TRANSISTOR 2SA1162-G	
Q611	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q612	8-729-903-29	TRANSISTOR DTA144TK	
Q613	8-729-216-22	TRANSISTOR 2SA1162-G	
Q801	8-729-016-32	TRANSISTOR 2SC4927-01	
Q802	8-729-140-97	TRANSISTOR 2SB734-34	
Q806	8-729-019-71	TRANSISTOR 2SK1916-53-F50	
Q807	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q813	8-729-140-96	TRANSISTOR 2SD774-34	
Q1501	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1502	8-729-901-01	TRANSISTOR DTC144EK	
Q1503	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1504	8-729-901-01	TRANSISTOR DTC144EK	
		<RESISTOR>	

REF.NO.	PART NO.	DESCRIPTION				REMARK
JR001	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR002	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR003	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR004	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR005	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR006	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR007	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR502	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR503	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR504	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR505	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR506	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR508	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR509	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR510	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR511	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR512	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR601	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR602	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR603	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R602	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R603	1-215-901-00	METAL OXIDE	33K	5%	2W	F
R604	1-260-200-11	CARBON	240K	5%	1/2W	
R605	1-216-313-00	METAL GLAZE	8.2	5%	1/10W	
R606	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R607	1-216-210-00	METAL GLAZE	3.3K	5%	1/8W	
R608	1-215-903-11	METAL OXIDE	68K	5%	2W	F
R609	1-249-395-11	CARBON	15	5%	1/4W	
R610	1-247-881-00	CARBON	120K	5%	1/4W	
R611	1-215-886-11	METAL OXIDE	100	5%	2W	F
R612	1-247-894-11	CARBON	430K	5%	1/4W	
R613	1-216-260-11	METAL GLAZE	390K	5%	1/8W	
R614	1-216-487-11	METAL OXIDE	12K	5%	3W	F
R615	1-216-487-11	METAL OXIDE	12K	5%	3W	F
R617	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R618	1-216-449-11	METAL OXIDE	56	5%	2W	F
R620	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R621	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R622	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R623	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R625	1-216-449-11	METAL OXIDE	56	5%	2W	F
R626	1-216-635-11	METAL CHIP	220	0.50%	1/10W	
R627	1-249-398-11	CARBON	27	5%	1/4W	F
R629	1-215-464-00	METAL	62K	1%	1/4W	
R630	1-249-421-11	CARBON	2.2K	5%	1/4W	
R631	1-216-397-11	METAL OXIDE	4.7	5%	3W	F
R633	1-249-415-11	CARBON	680	5%	1/4W	
R634	1-215-477-00	METAL	220K	1%	1/4W	
R635	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R636	1-215-925-11	METAL OXIDE	22K	5%	3W	F
R637	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R638	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R639	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R640	1-207-905-00	WIREWOUND	0.27	10%	2W	F
R642	1-216-373-11	METAL OXIDE	2.2	5%	2W	F
R643	1-249-417-11	CARBON	1K	5%	1/4W	
R645	1-215-464-00	METAL	62K	1%	1/4W	
R646	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R647	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R648	1-249-424-11	CARBON	3.9K	5%	1/4W	
R649	1-216-270-00	METAL GLAZE	1M	5%	1/8W	
R650	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R651	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	

D H1 H2

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R652	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R653	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R654	1-215-904-11	METAL OXIDE	100K	5%	2W	F
R655	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R656	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R657	1-249-407-11	CARBON	150	5%	1/4W	
R801	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R803	1-535-143-31	LEAD, JUMPER	(15.0MM)			
R804	1-217-778-11	FUSIBLE	1K	5%	1W	F
R807	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R811	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R812	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R818	1-216-688-11	METAL CHIP	36K	0.50%	1/10W	
R819	1-247-755-11	CARBON	1.8K	5%	1/2W	F
R821	1-215-920-00	METAL OXIDE	3.3K	5%	3W	F
R822	1-215-920-00	METAL OXIDE	3.3K	5%	3W	F
R823	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R825	1-216-345-11	METAL OXIDE	0.47	5%	1W	F
R826	1-216-166-00	METAL GLAZE	47	5%	1/8W	
R833	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R839	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R840	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R841	1-249-397-11	CARBON	22	5%	1/4W	F
R842	1-215-890-11	METAL OXIDE	470	5%	2W	F
R849	1-216-474-11	METAL OXIDE	82	5%	3W	F
R851	1-247-743-11	CARBON	220	5%	1/2W	F
R852	1-249-389-11	CARBON	4.7	5%	1/4W	F
R853	1-249-443-11	CARBON	0.47	5%	1/4W	F
R854	1-249-443-11	CARBON	0.47	5%	1/4W	F
R855	1-202-818-00	SOLID	1K	10%	1/2W	
R858	1-249-424-11	CARBON	3.9K	5%	1/4W	
R864	1-216-686-11	METAL CHIP	30K	0.50%	1/10W	
R868	1-249-437-11	CARBON	47K	5%	1/4W	
R878	1-215-886-11	METAL OXIDE	100	5%	2W	F
R871	1-249-493-11	CARBON	56K	5%	1/2W	
R872	1-249-393-11	CARBON	10	5%	1/4W	F
R873	1-249-393-11	CARBON	10	5%	1/4W	F
R876	1-249-421-11	CARBON	2.2K	5%	1/4W	
R877	1-215-884-11	METAL OXIDE	47	5%	2W	F
R878	1-215-886-11	METAL OXIDE	100	5%	2W	F
R889	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R893	1-215-878-00	METAL OXIDE	33K	5%	1W	F
R894	1-216-264-00	METAL GLAZE	560K	5%	1/8W	
R895	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R897	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R898	1-216-262-00	METAL GLAZE	470K	5%	1/8W	
R1501	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W	
R1502	1-216-664-11	METAL CHIP	3.6K	0.50%	1/10W	
R1503	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1504	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1505	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1506	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1508	1-216-684-11	METAL CHIP	24K	0.50%	1/10W	
R1509	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1510	1-249-382-11	CARBON	1.2	5%	1/4W	F
R1511	1-215-887-00	METAL OXIDE	150	5%	2W	F
R1512	1-216-372-00	METAL OXIDE	1.8	5%	2W	F
R1514	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1551	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	

<VARIABLE RESISTOR>

RV601	1-241-628-11	RES, ADJ, CARBON 2.2K	

REF.NO.	PART NO.	DESCRIPTION	REMARK

<TRANSFORMER>

T601	⚠1-423-739-11	S.R.T (SMT7)	
T801	⚠1-453-118-11	TRANSFORMER ASSY, FLYBACK (NX-2600A2)	
T803	1-437-090-00	HDT	

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	*1-648-314-11	H1 BOARD	
		********	

<CAPACITOR>

C083	1-163-037-11	CERAMIC CHIP 0.022MF	10%	25V	
C087	1-163-037-11	CERAMIC CHIP 0.022MF	10%	25V	

<JACK>

J-81	1-568-678-11	TERMINAL BLOCK, S 3P	
J-82	1-562-837-11	JACK	

<CONNECTOR>

CN1008	*1-564-516-11	PLUG, CONNECTOR 13P	

<COIL>

L081	1-408-409-00	INDUCTOR	10UH		
L082	1-408-409-00	INDUCTOR	10UH		

<RESISTOR>

JR021	1-216-295-00	METAL GLAZE	0	5%	1/10W
R081	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R082	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R083	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R084	1-216-202-00	METAL GLAZE	1.5K	5%	1/8W
R085	1-216-202-00	METAL GLAZE	1.5K	5%	1/8W

<SWITCH>

S081	1-571-532-21	SWITCH, TACTIL	
S082	1-571-532-21	SWITCH, TACTIL	
S083	1-571-532-21	SWITCH, TACTIL	

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	*1-648-475-11	H2 BOARD	
		********	
	*4-201-076-01	HOLDER, LED	
	*4-374-987-01	GUIDE, LIGHT	
	4-381-686-01	BRACKET (B), LIGHT GUIDE	

<CONNECTOR>

CN1132	*1-568-882-51	PIN, CONNECTOR 7P	

<DIODE>

D092	8-719-948-31	DIODE LD-201VR	
D093	8-719-948-31	DIODE LD-201VR	
D094	8-719-948-31	DIODE LD-201VR	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC091	8-741-101-75	IC SBX1610-11	
		<RESISTOR>	
R091	1-216-190-00	METAL GLAZE 470 5% 1/8W	
**********			
	*A-1651-051-A	J BOARD, COMPLETE **********	
		<CAPACITOR>	
C281	1-124-119-00	ELECT 330MF 20% 16V	
C295	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V	
C296	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V	
C906	1-101-004-00	CERAMIC 0.01MF 50V	
C910	1-163-017-00	CERAMIC CHIP 0.0047MF 10% 50V	
C911	1-163-017-00	CERAMIC CHIP 0.0047MF 10% 50V	
C912	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C913	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C914	1-163-121-00	CERAMIC CHIP 150PF 5% 50V	
C915	1-163-121-00	CERAMIC CHIP 150PF 5% 50V	
C916	1-163-017-00	CERAMIC CHIP 0.0047MF 10% 50V	
C917	1-163-017-00	CERAMIC CHIP 0.0047MF 10% 50V	
C922	1-124-477-11	ELECT 47MF 20% 16V	
C923	1-164-346-11	CERAMIC CHIP 1MF 16V	
C924	1-124-477-11	ELECT 47MF 20% 16V	
C925	1-124-477-11	ELECT 47MF 20% 16V	
C926	1-164-346-11	CERAMIC CHIP 1MF 16V	
C927	1-124-477-11	ELECT 47MF 20% 16V	
C928	1-124-477-11	ELECT 47MF 20% 16V	
C929	1-124-477-11	ELECT 47MF 20% 16V	
C930	1-124-477-11	ELECT 47MF 20% 16V	
C931	1-164-346-11	CERAMIC CHIP 1MF 16V	
C932	1-164-346-11	CERAMIC CHIP 1MF 16V	
		<CONNECTOR>	
CN1209	1-695-302-11	CONNECTOR, BOARD TO BOARD 50P	
CN1210*	1-564-522-11	PLUG, CONNECTOR 7P	
CN1233*	1-564-518-11	PLUG, CONNECTOR 3P	
CN1240*	1-564-519-11	PLUG, CONNECTOR 4P	
		<DIODE>	
D903	8-719-921-69	DIODE MTZJ-9.1	
D904	8-719-921-69	DIODE MTZJ-9.1	
D907	8-719-921-69	DIODE MTZJ-9.1	
D908	8-719-921-69	DIODE MTZJ-9.1	
D909	8-719-921-69	DIODE MTZJ-9.1	
D910	8-719-921-69	DIODE MTZJ-9.1	
D911	8-719-921-69	DIODE MTZJ-9.1	
D912	8-719-921-69	DIODE MTZJ-9.1	
D913	8-719-921-69	DIODE MTZJ-9.1	
D914	8-719-921-69	DIODE MTZJ-9.1	
D915	8-719-921-69	DIODE MTZJ-9.1	
D916	8-719-921-69	DIODE MTZJ-9.1	
D917	8-719-921-69	DIODE MTZJ-9.1	
D924	8-719-921-69	DIODE MTZJ-9.1	
D925	8-719-921-69	DIODE MTZJ-9.1	
D926	8-719-921-69	DIODE MTZJ-9.1	
D927	8-719-921-69	DIODE MTZJ-9.1	
D928	8-719-921-69	DIODE MTZJ-9.1	
D999	8-719-921-91	DIODE MTZJ-15A	

REF.NO.	PART NO.	DESCRIPTION	REMARK
		<JACK>	
J291	1-537-505-11	TERMINAL BOARD (2P)	
J903	1-561-534-41	SOCKET, PIN 21P	
J903	1-695-550-11	SOCKET 21P	
J905	1-695-293-11	SOCKET 21P	
		<TRANSISTOR>	
Q281	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q282	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
		<RESISTOR>	
JR901	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR906	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR915	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR917	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR918	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR919	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR920	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR921	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR924	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR926	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR927	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR928	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR935	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR940	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR942	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR952	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR954	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR955	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR956	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR957	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R282	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R283	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R284	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R287	1-216-216-00	METAL GLAZE 5.6K 5% 1/8W	
R288	1-216-216-00	METAL GLAZE 5.6K 5% 1/8W	
R289	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	
R290	1-216-216-00	METAL GLAZE 5.6K 5% 1/8W	
R291	1-249-413-11	CARBON 470 5% 1/4W	
R292	1-249-413-11	CARBON 470 5% 1/4W	
R911	1-216-022-00	METAL GLAZE 75 5% 1/10W	
R921	1-216-022-00	METAL GLAZE 75 5% 1/10W	
R922	1-216-222-00	METAL GLAZE 10K 5% 1/8W	
R923	1-216-039-00	METAL GLAZE 390 5% 1/10W	
R924	1-216-039-00	METAL GLAZE 390 5% 1/10W	
R925	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R926	1-216-039-00	METAL GLAZE 390 5% 1/10W	
R927	1-216-039-00	METAL GLAZE 390 5% 1/10W	
R928	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R929	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	
R930	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R931	1-216-212-00	METAL GLAZE 3.9K 5% 1/8W	
R932	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R933	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R934	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	
R935	1-216-022-00	METAL GLAZE 75 5% 1/10W	
R936	1-216-022-00	METAL GLAZE 75 5% 1/10W	
R937	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R938	1-216-039-00	METAL GLAZE 390 5% 1/10W	
R939	1-216-188-00	METAL GLAZE 390 5% 1/8W	

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REF.NO.	PART NO.	DESCRIPTION				REMARK
R940	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R941	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R942	1-216-188-00	METAL GLAZE	390	5%	1/8W	
R943	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R944	1-216-188-00	METAL GLAZE	390	5%	1/8W	
R945	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R959	1-216-674-11	METAL CHIP	9.1K	0.50%	1/10W	
R960	1-216-674-11	METAL CHIP	9.1K	0.50%	1/10W	
R966	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R967	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R968	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R969	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R970	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R977	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	

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MISCELLANEOUS
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⚠	1-406-828-11	COIL, DEGAUSSING	
⚠	1-451-295-11	DEFLECTION YOKE (Y21PFA2)	
	1-452-277-00	MAGNET, BMC	
	1-544-475-21	SPEAKER	
⚠	1-590-460-11	CORD, POWER(WITH CONNECTOR) 7.0A/250V (KV-A2131B,A2133E)	
⚠	1-590-762-11	CORD, POWER(WITH PLUG) 2.5A/250V (KV-A2132U)	
⚠	1-751-680-11	CORD, POWER(WITH NOISE FILTER) 2.5A/250V (KV-A2131A,A2131D)	
V901 ⚠	8-738-758-05	PICTURE TUBE (A51JXH61X)	

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ACCESSORIES AND PACKING MATERIALS
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	4-202-481-11	MANUAL, INSTRUCTION (KV-A2131D) (GERMAN/ENGLISH/FRENCH/DUTCH/ITALIAN)
	4-202-481-41	MANUAL, INSTRUCTION(KV-A2131A)(ITALIAN)
	4-202-481-51	MANUAL, INSTRUCTION (KV-A2131B) (FRENCH/GERMAN/ITALIAN)
	4-202-481-61	MANUAL, INSTRUCTION (KV-A2132U)
	4-202-481-71	MANUAL, INSTRUCTION(KV-A2133E)(SPANISH)
	4-202-481-81	MANUAL, INSTRUCTION (KV-A2133E) (FRENCH/DUTCH/SWEDISH/DANISH/ FINNISH/NORWEGIAN/PORTUGUESE)
	*4-039-905-01	BAG, PROTECTION
	*4-040-822-01	CUSHION (UPPER) (ASSY)
	*4-040-823-01	CUSHION (LOWER) (ASSY)
	*4-040-824-01	INDIVIDUAL CARTON

REMOTE COMMANDER

	1-467-272-11	COMMANDER,STANDARD TYPE(RM831)
	9-903-466-01	POCKET COVER (FOR RM831)

English
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